Title:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the context of Primary Health Care Re-engineering in Gauteng

A Research Report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of:

Master of Public Health (MPH)

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Candidate's declaration

I, Shehnaz Munshi (student number 0203439R), am a post-graduate student registered for the degree Master of Public Health (MPH) at the University of the Witwatersrand, School of Public Health.

I am submitting written work for the research report component of the aforementioned degree.

I hereby declare the following:

- I confirm that the work submitted for the above course is my own work, except where I have stated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.

Signed: _____

Dated: 19 June 2017

Dedications

To Shamim Munshi, Ismail Munshi, Essop Munshi
Razina Munshi, Naadira Munshi, Fatima Munshi and Sameera Munshi

To all the community health workers in the country who continue to provide selfless services to the vulnerable and underserved of their communities.
I salute you, for your dedication and commitment.

Conference proceedings

1. Munshi, S. **Oral Presentation:** *(Un)equal access to health care - experiences from South Africa*. Invitation to deliver a keynote address at the Students GLOBVAC conference: Theme: The gap between evidence and reality – thinking through equity, mental health and qualitative research, Trondheim, Norway. March 2017.

2. Munshi, S., Moosa S, Eyles, J. **Oral Presentation:** *Implementation Gap: Is our health system ready to ensure sustainable implementation of the WBOT program*? 1st International conference on community health workers: Theme: Contribution of community health workers in the attainment of the Sustainable Development Goals, Uganda, Kampala, February 2016

3. Munshi, S., Moosa S, Eyles, J. **Oral Presentation: Awarded Third Best Oral presentation:** *Implementation Gap: Is our health system ready to ensure sustainable implementation of the WBOT program*? Presentation of research findings to the Ekurhuleni Research committee at the 2016 Ekurhuleni Research Conference, Birchwood Conference Centre, Johannesburg, South Africa. November 2016.

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7. Choonara, S., Baloyi, M., Bucyibaruta, B., Fusheini, A., Mambulu, F., Munshi, S., Ngyende, Oboirien, K, Harris, B, Goudge, J, Eyles, J. **Panel Discussion:** *Highlighting universal health coverage (UHC) and its implementation challenges in South Africa* (a SARChI Research Initiative- Health Policy and Systems Research). School of Public Health Research Day: Theme: Healthography. September 2015

8. Munshi, S., Moosa S, Eyles, J. **Poster Presentation: Awarded Second Best Poster presentation:** *"We don't have an office. We sit under a tree"... Perceptions of Ward Based Outreach Teams in one Gauteng district.* School of Public Health Research Day: Theme: Healthography. September 2015

Awards

1. The South African Research Chair Institute (SARChI), National Research Foundation (NRF) grant under the guidance of Professor John Eyles.

2. A bursary through the European Union FP7 entitled: This study was nested within a larger study entitled the Human resources for Primary Care in Africa (HURAPRIM) project, an international European Union Commission – The Seventh Framework Programme - EU-FP7 (2007-2013) funded research initiative that sought to critically examine the deficit in human resources for primary health care in Africa. In South Africa, the HURAPRIM team examined ward based outreach teams (WBOT) in two districts, elucidating the views of key stakeholders to understand human resources issues; ethical dilemmas; implementation experiences; and policy or power challenges.

Policy and implementation contributions

1. Participation in quarterly WBOT Provincial Task Team meetings across the Gauteng Province to: provide input from the broader HURAPRIM project and my research findings and to support by taking minutes from: January 2015 – February 2016

2. Invitation to the work session on the Final Draft of the Municipal Ward Based Outreach Team Policy Framework and Strategy, Birchwood Executive Hotel, May 2015

3. Invitation to Round Table Discussion on the Ward Based Primary Health Care Outreach Team (WBOT) Policy and Strategy Implementation Plan, entitled Unpacking the WBOT Policy and Strategy - implications for implementation, Wednesday, 29 March 2017

Abstract

Background

In order to achieve the Millennium Development Goals, South Africa embarked on a strategy in 2011 to re-engineer its Primary Health care (PHC) system. This included the creation of Ward-based Outreach Teams (WBOTs). Each team comprises six community health workers (CHWs) led by a professional nurse linked to a clinic. The national guidelines prescribe that each municipal ward should have at least one WBOT to improve access to health care and strengthen the decentralised district health system. Implementation of the WBOT policy has varied across the country.

Methodology

This qualitative study explored WBOT staff and manager views on initial WBOT implementation in the Ekurhuleni health district. Research methods included five focus group discussions with CHWs; 14 in-depth interviews with team leaders and managers; and ethnographic observations. Using the framework analysis approach, data were coded based on themes relevant to the National Implementation Research Network's (NIRN) Implementation Drivers' Framework, including: competency, leadership and organizational drivers of the initial implementation processes. The context in which implementation occurred was also an important theme, as derived from the NIRN formula for successful implementation.

Results

There were significant weaknesses underscoring the current implementation of WBOTs in the district. The experiences of WBOT staff and managers illustrate that competence to perform the ideal roles was compromised by poor staff selection, inadequate training and limited coaching. CHWs complained of precarious working conditions, payment delays and uncertainty of employment contracts. Within the community context, CHWs experienced both positive and negative attitudes from the community and clinic staff from *inter alia*: traditional beliefs; stigma; and, the perception that CHWs were increasing clinic workloads. Despite this, CHWs valued their expanded role, including the ability to refer to services beyond the clinic such a social services, police and home affairs, and felt motivated by the impact of their work in the communities they serve.

Weak organisational processes, compounded by poor planning, budgeting and rushed implementation, resulted in problems with procurement of resources. The lack

of support for robust data management led to poor data verification, quality and use for decision-making.

Communication challenges revealed leadership deficiencies at the national and implementation levels. This led to confusion about the ownership of the programme and poor integration of WBOT into the service delivery package in traditional clinic settings. Conflicting departmental mandates (between provincial and municipal departments), fragmented leadership and accountability, all lack of insight into the policy objectives and a disabling and ill-prepared context, constrained efforts of WBOTs at the local level. This also affected the embeddedness and acceptance of the programme in clinics and the community, impacting on implementation fidelity.

Conclusion

Sustainable systemic change requires clear, detailed planning guidelines, defined leadership structures, budgetary commitments, and continuous communication strategies. Furthermore, successful change is dependent on the on-going commitment to human resources development and capacity building, including investment in supervision, quality training, organisational support and competent staff. This study highlights the critical importance of organisational readiness that includes health systems and actor readiness when implementing policies across decentralised systems. Furthermore, adaptation to local contexts must be heeded in policy processes. This study further illustrates that in order to re-engineer PHC, to achieve the vision and values set out by the Alma Ata Declaration, and, to strengthen outreach services across relevant sectors, participation of all relevant actors in the implementation process.

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Love, Shehnaz

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List of abbreviations and acronyms

ANC	African National Congress
ARV	Antiretroviral
CBO	Community based organisation
CHC	Community health centre
CHW	Community health worker
DCST	District-based clinical specialist team
DHS	District health system
DHIS	District Health Information System
DOTS	Direct Observed Treatment
EHD	Ekurhuleni Health District
EPWP	Expanded Public Works Programme
EPI	Expanded Programme on Immunisation
FPD	Foundation for Professional Development
GDP	Gross domestic product
GP	General practitioner
FGD	Focus group discussion
HAART	Highly active antiretroviral therapy
HURAPRIM	Human resources for Primary Care in Africa
IDF	Implementation Drivers Framework
LGA	Local government authority
LMIC	Lower and middle income country
KII	Key informant interview
KSD	King Sabata Dalindyebo
MDG	Millennium Development Goal
NGO	Non-governmental organisation
NHI	National health insurance
NIRN	National Implementation Research Network
NQF	National Qualification Framework
NSDA	Negotiated Service Delivery Agreement
PHA	Provincial health authority
PHC	Primary Health Care
PSF	Programa Sáuda da Família
DoH	South African National Department of Health
SAMWU	South African Municipal Workers Union
SDG	Sustainable Development Goal
SUS	Unified Health System
TB	Tuberculosis
UHC	Universal health coverage
WHO	World Health Organisation
WBOT	Ward Based Outreach Team
WHR	World Health Report

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Chapter One: Introduction

1.1 Background

South Africa's health care expenditure is 8.5% of the gross domestic product (GDP), yet health outcomes are poorer than other middle-income countries with similar expenditure (McIntyre & Thiede 2007). According the World Health Organization (WHO), efforts to reduce the under-five mortality rate (per 1,000 live births) in South Africa resulted in a reduction from 61 in 1999 to only 44 in 2015, therefore missing the Millennium Development Goal (MDG) target of 20 by more half (WHO 2015). The maternal mortality ratio (per 100 000 live births) remains staggeringly high with only a small reduction from 150 in 1999 to 140 in 2013. Deaths due to HIV/AIDS (per 100 000 population) had increased from 322.2 in 199 to 385.9 in 2013 (WHO 2015). Currently, South Africa is characterised by a quadruple burden of disease; with diseases affecting mainly mothers and children, HIV/AIDs and tuberculosis (TB) infections, violence and trauma, and an accelerating epidemic of non-communicable diseases (SANDoH 2015).

Comprehensive primary Health Care (PHC) is viewed as critical in improving health outcomes (WHO & UNICEF 1978; Commission on Social Determinants of Health & World Health Organization 2008). Comprehensive PHC recognises that improvements in health result from a reduction in the effects of disease as well as from an increase in social well-being (Sanders & Chopra 2001). The Alma Ata Declaration has a clause that states that PHC: ''addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly'', indicating that the focus lies both at the individual and the society (WHO & UNICEF 1978: 2). Improved social environments created by the harnessing of popular and political will and effective intersectoral action may promote well-being (Sanders & Chopra 2001).

International efforts to implement comprehensive PHC have been limited by a diverse range of complex challenges, in the 39 years since the Alma Ata Declaration (Rohde et al. 2008; Rosato et al. 2008). Yet, there is global recognition that in order to address the growing disparities and health inequities, specifically in developing countries, the practice of comprehensiveness PHC values need to be restored and revived through mechanisms such as community participation and inter-sectoral action to address the social determinants of health (WHO & UNICEF 1978; Commission on Social Determinants of Health & World Health Organization 2008).

In South Africa, following the first democratic elections in 1994 that ended the apartheid regime, the new African National Congress (ANC) government introduced many significant policy reforms to address health inequities and established PHC as core of South Africa's health policy (Coovadia et al. 2009). PHC describes and approach to health policy and service provision that includes both services delivered to individuals (primary care services) and population-level

"public health-type" functions (Muldoon et al. 2006). Starting with the National Health Plan of 1994, the government responded to the transformation imperatives of the South African health system by shifting the focus of health care service delivery from the hospital towards a PHC level. The plan recognised primary care to become the gatekeeper of the formal health system and placed emphasis on strengthening health care services at the community and primary level encouraging health promotion, early detection of illness and preventive care premised on PHC as envisioned by the Alma Ata Declaration (Coovadia et al. 2009). Primary care describes services delivered to individuals, by a front line provider such as a nurse, doctor, or family physician (Muldoon et al. 2006).

Another goal of the National Health Plan has been to focus on the shortages in the health care workforce, and ways to extend priority health care interventions to vulnerable and underserved communities, through mechanisms such as task shifting. “Task-shifting” is the process of review and subsequent delegation of tasks from a “higher” to the “lowest” category of health worker that can perform them successfully (WHO 2008a; Zachariah et al. 2009). Globally, there is re-emerging interest in community health workers (CHWs) as part of wider policies regarding task-shifting within human resources for health (van Ginneken et al. 2010). Moreover, there is re-emerging interest in the role that CHWs can play as the link between the formal health sector and the community (Bhutta et al. 2010; Lewin et al. 2010; Lewin et al. 2006; Lewin et al. 2005; Gilmore & McAuliffe 2013). CHWs are uniquely placed to play a vital role in strengthening community-based services, providing select clinical interventions and promoting healthy behaviours at the community level. They improve the reach of health systems by bringing services closer to hard-to-reach and marginalised groups living in informal settlements and rural areas. CHWs are also cost effective, relative to similar services provided by higher-level staff based at PHC facilities (Perry & Zulliger 2012; Snyder 2016; Sprague 2012; Prasad & Muraleedharan 2007).

South Africa has a rich history of using CHWs to provide care for people in their homes, spans over fifty years, predating the Alma Ata Declaration. This cadre of home-based carers and CHWs grew in numbers during the repressive regime of apartheid (Perry et al. 2014; van Ginneken et al. 2010). CHW is an umbrella term encompassing a variety of community aides who carry out functions related to health care delivery. As defined by,

> CHWs should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organisation, and have shorter training than professional workers (Lehmann & Sanders 2007: 11).

Globally, CHWs had and have a large number of different titles, with Lehmann (2007) and colleague identifying a list of 36 that include lady health workers from Pakistan, activista from

Mozambique, rural health motivator from Swaziland, village health worker from various countries and HIV counsellor from South Africa (Lehmann & Sanders 2007).

Since the passing of the National Community Health Worker Programme and National Health Act of 2004, CHWs have played a significant role responding to the treatment adherence and palliative care needs driven by the twin epidemics of the HIV/AIDS and TB (Schneider et al. 2008; Perry et al. 2014; Naledi et al. 2011; Republic of South Africa 2004). These CHW programmes were integrated into the Department of Social Development's Expanded Public Works Programme (EPWP**)** in 2004 relying heavily on non-governmental organisations (NGO) and Community-Based Organisations (CBOs) to manage and coordinate their efforts (Clarke et al. 2008). The programmes were largely internationally funded and were designed to be diseased specific or "verticalised" (Kawonga et al. 2012). However, such a technical approach to service delivery limited CHWs from becoming a strategic link between the community and more formal health structures. This resulted in underutilisation of CHWs' strengths, and a compromise to the spirit of the comprehensive PHC approach (Naledi et al. 2011).

In an article called 'A Perspective on Primary Health Care in South Africa', Kautzky and Tollman (2008) revealed that 'access to public services remain problematic, particularly for the poorest and sickest, despite the free provision of PHC and exemptions from hospital fees for the poor' (Kautzky & Tollman 2008). An example of this was highlighted in a recent study examining the timely delivery of immunisations to children in the first two years of life in rural Eastern Cape Province found the main reasons for incomplete immunisations were access issues such as stock outs (56%), lack of awareness of immunisation schedule by the mother (16%) and lack of clinic attendance by the mother (19%) (Le Roux et al. 2016). Health care worker shortage and inequities in distribution, over-bureaucratised primary care service, deficiencies in leadership impede the implementation of the PHC policies (Kautzky & Tollman 2008).

In 2009, the National Health Council of South Africa mandated that in order to improve health outcomes, significant steps must be taken to restructure the health system (SANDoH 2011). In 2010, when a major policy development called the Negotiated Service Delivery Agreement (NSDA) set out a plan to address the multiple challenges with PHC in SA with a commitment to a defined goal: 'a long and healthy life for all" (Republic of South Africa 2010). A pillar of the NSDA is to 'strengthening the effectiveness of the health system' mandating a fundamental change to overhaul the health finance mechanism with the introduction of South Africa's version of Universal Health Coverage (UHC): the National Health Insurance (NHI) (Republic of South Africa 2010). The present NHI drive builds on a long history of attempts to introduce a form of universal health coverage (SANDoH 2015). In order to learn lessons from the success in other countries, the South African Minister of Health, Aaron Motsoeledi, formed a team that went on a reconnaissance mission to Brazil in 2010 also in the global south (SANDoH 2011).

Brazil was able to improve access to health care and improve health outcomes by among other things, expanding the role of community health agents working in teams with health professionals delivering health services to households in designated catchment areas (Macinko & Harris 2015; SANDoH 2011). The core component of Brazil's 'Unified Health System' (SUS) model is the Family Health Team (Programa de Saúde da Família - PSF). CHWs were fully integrated into PHC services as paid members of the multi-disciplinary PSF teams. PSF reorganised primary care so that PHC became the first point of entry into the health system (Lehmann & Sanders 2007; Macinko & Harris 2015).

Fifteen years after the introduction of the PSF model in 1990, Brazil's infant mortality had dropped from 48 deaths per 1000 to 17 deaths per 1000 (Metropolitan Health 2012). Deaths as a result of diabetes or strokes decreased by 25% while the proportion of children under the age of five who were underweight declined by 67% (Metropolitan Health 2012). The Brazilian governments success was, *inter alia*, a result of Brazil's sustained financial and political commitment to the implementation of the PSF, and long-term vision to improve population health (Macinko & Harris 2015).

On the African continent, Ethiopia and Rwanda were also able to make significant progress in reducing under-five mortality rate (per 1,000 live births) respectively from 205 in 1990 to 58 in 2015 (beating the MDG target of 68) and from 152 in 1990 to 42 in 2015 (beating the MDG target of 51) (UNICEF & WHO 2015). The most significant intervention in both these countries was the presence of a primary health intervention that deployed health extension workers such as CHWs to deliver targeted community based interventions (UNICEF & WHO 2015).

Minister Motsoeledi returned from Brazil with the vision for the re-engineering of PHC, adapting the PSF model to build a South African model. On 4 September 2011, the South African National Department of Health (DoH) released the "Provincial Guidelines for the Implementation of the Three Streams of PHC Re-engineering in 2011" (SANDoH 2011). The model has four streams illustrated in figure 1: municipal ward-based PHC outreach teams for each electoral ward (WBOT); school health services; district-based clinical specialist teams (DCST); and general practitioner (GP) Contracting (SANDoH 2015; SANDoH 2011).

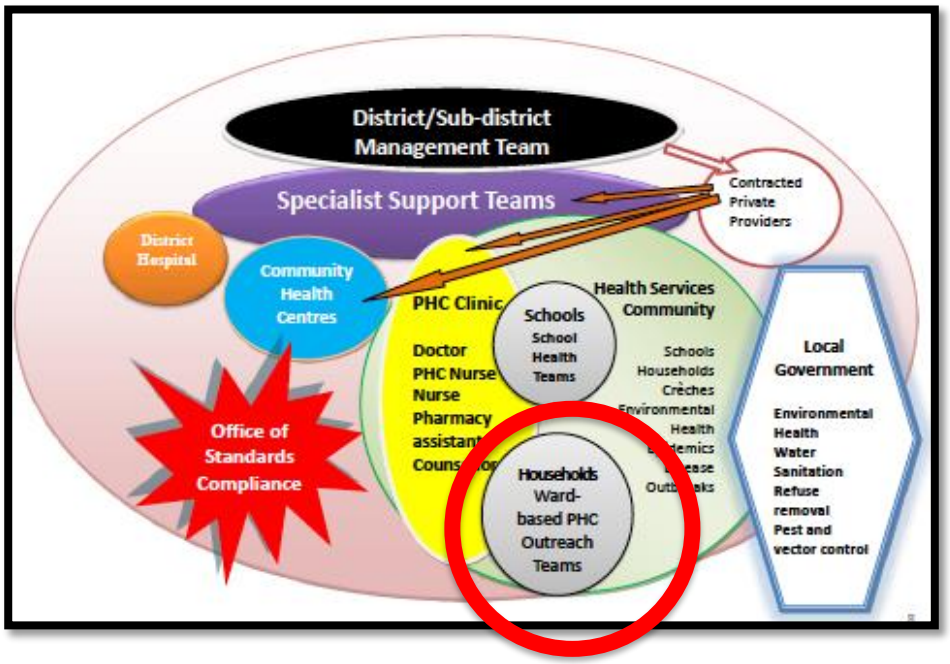

Figure 1: Proposed Primary Health Care Model for South Africa
Source: (Barron et al. 2010)

The guidelines, along with a few discussion papers released by DoH officials, serve as the only sources of information to establish and support WBOTs in PHC areas (Pillay 2009; Pillay & Barron 2012; SANDoH 2012a; Barron 2012). The DoH acknowledged that previous CHW programmes funded and managed through NGOs were ad hoc informal solutions that faced multiple problems (Pillay & Barron 2012; Jinabhai et al. 2015). One challenge was the random distribution of CHWs across the country, resulting in uneven and poor coverage. Secondly, there were limited or no targets for either coverage or quality. CHWs received limited training and insufficient support or supervision. There appeared to be no link between community-based services and services offered by fixed health facilities. Finally, the accountability mechanisms for CHWs and NGOs appeared inadequate (SANDoH 2011; Nxumalo et al. 2013). A 2011 audit revealed that R2.4 billion was spent on 72,000 CHWs across the country; however, there remained limited knowledge of CHWs' actual impact on health outcomes (SANDoH 2011). The guidelines suggested that "Many of these factors can be corrected if CHWs were part of a team, were well trained, supported and supervised with a clear mandate both in terms of what they are expected to do as well as catchment population that they are responsible for" (Pillay & Barron 2012: 3).

A multidisciplinary team consisting of a professional nurse who, alongside one health promoter and one environmental health officer, was to lead a team of six CHWs as illustrated in figure 2 below (SANDoH 2011).

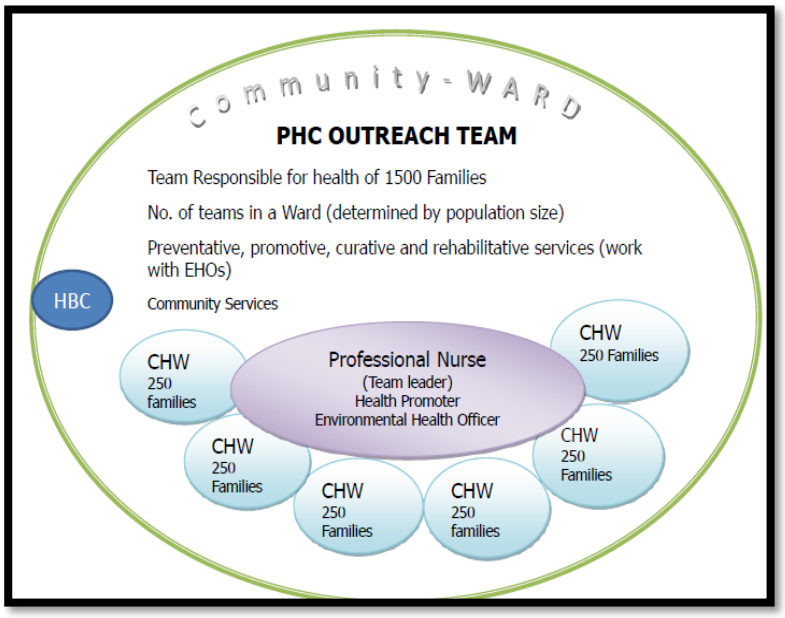

Figure 2: Ward based PHC Outreach Team (WBOT)
Source: (Barron et al. 2010)

According the guidelines, each team should be allocated a population of approximately 7,600 people in a demarcated geographical area within a municipal ward (SANDoH 2011; Pillay & Barron 2012). South Africa has 4,277 electoral wards, which a political boundaries with variability in population density, geography and disease burden (SANDoH 2011). As a result, some wards may require more than one team. The DoH indicated that it would prioritise vulnerable and hard to reach areas such as informal urban settlements, townships and rural areas in the deployment of WBOT teams. The team was expected to function in conjunction with the clinic, and not separately from it (Barron et al. 2010).

The guidelines stipulate that the CHWs should be functionally literate and numerate and have some previous training, as well as at least a year of work experience as a care worker. As a result, most CHWs recruited into this programme would have worked with NGOs that were managed previously through the EPWP programme (Clarke et al. 2008).

The guidelines state that CHWs are required to have a clear job description; standardised scope of work and clearly defined roles and responsibilities. CHWs should be paid and directly managed by the DoH, with annual contracts that should include basic benefits in accordance with the Basic Conditions of Employment Act (SANDoH 2011).

The guidelines also specify that a district manager should appoint team leaders who are registered either as a professional nurse, midwife, community or psychiatric nurse, with experience working in a PHC setting. They must be comprehensively trained and are

responsible for providing close supervision of CHWs, including conducting performance reviews. The PHC clinic managers are responsible for adjudicating performance reviews.

The team leader is responsible for ensuring that her work is linked to the service delivery targets of the facility. S/he is also responsible for managing the work of WBOTs and the financial, human and material resources allocated to the team.
The guidelines define the purpose of CHWs as follows:

> "[The] CHW creates a bridge between the providers of formal health services, community services, social agencies and vulnerable populations within the community. CHWs are trained to carry out basic assessments of communities, households groups and individuals, provide basic health education and referrals for a wide range of services, and support and assist in navigating the health and social services system. In addition CHWs can build community capacity through support groups and education campaigns and programmes" (SANDoH 2011: 54).

In order to improve access to PHC services, the guidelines defined the scope of practice for CHWs, specifically to:

1 Promote health (child, adolescent and women's health)
2 Prevent ill health
3 Ensure ante and post natal community based support and interventions to reduce maternal mortality
4 Provide information and education to communities and households on a range of health and related matters
5 Provide psychosocial support in collaboration with community care givers supported by the Department of Social Development
6 Screen for early detection and intervention of health problems and illnesses
7 Provide follow-up and support to persons with health problems including adherence to treatment
8 Provide treatment of minor ailments
9 Provide basic first aid and emergency interventions (SANDoH 2011: 5)

WBOTs must use record demographic, clinical screening and all relevant information household registrations collections while team leaders have reporting on monthly basis (see Appendix B). Within the health facility, WBOTs are required to work with the clinic manager so that their work is integrated into the clinic structure. The manager is expected to facilitate this process by providing WBOT members with space and identifying staff to support the team (Pillay & Barron 2012).

The guidelines indicate that while the National Treasury will make some funds available in the future, districts are required to increase efficiencies within their own operations, directing any surplus to the WBOT programme. They must accommodate the teams in the facility within the same budget, manage increases in referrals to the facility, and cater for resource requirements. This includes equipment and transport (SANDoH 2011).

The DoH envisaged an incremental approach to implementation. This was linked to the roll-out of training in the first two years. CHWs were expected initially to undertake tasks such as profiling, mapping and registering members of the community. Thereafter they were expected to receive three phases of training over four years that would result in a National Qualification Framework (NQF) qualification, with the aim to mobilise CHWs' entry into the formal health system (Pillay & Barron 2012).

While the introduction of WBOTs was a positive attempt to address the shortcomings mentioned above, many features of the South African adaptation are different to the Brazilian model (PSF). Significant differences include: the composition and design of the team; the organisation and structure of PHC; the financial investment by the state; and, the implementation context. The Brazilian government passed Constitutional Amendment 29 for the financing of health in Unified Health System (SUS) that included 15% of the municipal budget, 12% of the states' budgets, in addition to spending by the Federal union, starting in 2000, and increasing each year according to GDP growth (Sampaio 2006). Brazil created a Basic Care Ceiling - PAB (Piso de Atenção Básica, a budget "floor" for basic health care) – a national per capita for all municipalities. They also introduced an adjustable PAB and equity incentive for the PSF (Sampaio 2006). This heavy investment to ensure adequate financing was vastly different from South Africa's approach to supporting a new CHW initiative.

Naledi (2011) and colleagues warned that "PHC re-engineering strategy is an essential – but not a sufficient – condition to achieve improved health outcomes; it has to be accompanied by a change of culture that incentivises system-wide planning and implementation to achieve desired outcomes and maximise strategic partnerships" (Naledi et al. 2011: 17). This is because the policies are often reshaped in the process of implementation (Gilson, Elloker, et al. 2014). Actors, who are the heartbeat of the policy process, shape implementation by the way they value the policy, and their motivation to implement of the policy effectively (Lehmann 2016). In this way, they use their discretionary power, which is often influenced by how they personally make sense of the policy (Gilson, Elloker, et al. 2014). This, in turn, influences their decisions and non-decisions made at all stages of the policy implementation process, making them street level bureaucrats (Buse, Mays & Gillian Walt 2012). Dr Prinitha Pillay from the Rural Health Advocacy Project reflects the need for strategic leadership, and commitment to PHC in her comment:

> "...in the absence of a formal policy, the health department risks 'sabotaging' its own programme and undermining its 'primary health strategy'. There is a failure of leadership to articulate how provinces are supposed to make the CHW strategy happen, where the money is going to come from and how we will properly support the right number of workers with a decent scope of work. If we don't say anything about it, we breathe life into the failure of leadership" (Malan 2014b: 4).

This warning brings to attention the National Implementation Research Network (NIRN) focus on implementation science, defined as "the study of factors that influence the full and effective use of innovations in practice" (NIRN 2016b). The NIRN defines implementation as "a specified set of activities designed to put into practice an activity or program of known dimensions (NIRN 2016a). According to this definition, implementation processes are purposeful and are described in sufficient detail such that independent observers can detect the presence and strength of the "specific set of activities" related to implementation. In addition, the activity or program being implemented is described in sufficient detail so that independent observers can detect its presence and strength" (NIRN 2016a: 1). This definition makes a clear distinction between the intervention-level activities and outcomes and the implementation-level activities outcomes, and highlighting the fact that specific processes have to be put in place to attempt implementation.

The NIRN team characterized a formula for successful evidence-based programs in typical human service settings as follows: "effective intervention X effective implementation plan X enabling context =" as three cumulative prerequisites for attaining "socially significant outcomes" (Bertram et al. 2013; NIRN & Duda 2013; NIRN 2016a). As applied to the PHC re-engineering guidelines, this model would include the following prerequisites to achieve the aspirations of WBOT: a well-defined WBOT intervention X a clear strategy to guide WBOT implementation through different stages of implementation X an enabling environment in the district and in each geographical ward. The socially significant outcomes include all the aspirations of the DoH for PHC re-engineering, and ultimately towards improving health outcomes. Buse (2012) and colleagues, along with other policy analysis researchers, add to and compliment the NIRN guidelines by recommending that the context be stable, and a well-defined implementation structure must be in place (Buse, Mays & Gillian Walt 2012; Sabatier & Mazmanian 1979). The extensive research on implementation over time reflects the complexity and dynamism involved in the implementation process within complex adaptive health systems, hereby complicating the claim that this process can be restricted to an attempt to translate its processes into a linear equation (Nilsen et al. 2013; Gilson, Elloker, et al. 2014). The lens of complex adaptive systems offers alternative approaches that better reflect the complex and changing nature of health systems, and creates new opportunities for understanding, expanding and scaling up health services to be sustainable (Paina & Peters 2012).

The WBOT model was new to the South African health system and is implemented into a context that is fraught with challenges (Kautzky & Tollman 2008; Coovadia et al. 2009; Naledi et al. 2011). At the time of the study, it was too early to measure health outcomes, or to assess impact of the implementation of the WBOT programme to improve access to safe, quality health service in the community and equity.

Instead, this study is unique in its in-depth examination of the initial implementation experiences and perceptions of the roll out of this 'hybrid' model in one health district in South Africa, Ekurhuleni. This study is concerned therefore with how translation of the WBOT guidelines into a living, breathing programme and activities occurred on the ground. It is a "snap shot" of initial implementation two years after the announcement of a change process, through the primary lens of implementation science complemented by a policy analysis lens. This research is interested in understanding how this change is experienced in a hostile context that is fraught with challenges (Kautzky & Tollman 2008; Coovadia et al. 2009; Naledi et al. 2011).

This study records, from the perspectives of many key role players, how the roll out of WBOT guidelines happened in EHD, the context and its role in constraining or enabling initial implementation from September 2014 to March 2015. By exploring the everyday lived experiences of turning a paper policy into a living programme, it documents how the district coped with implementation. There was an assumption that the programme would be revolutionary, with aspirations that included the achievement of equity in access to quality essential health-care services It was envisaged as a task shifting strategy and solution to the health care workforce crisis in South Africa (SANDoH 2011; SANDoH 2015).

This research report consists of a literature review, methodology, results, discussion and recommendations section.

1.2 Problem statement

Globally, there have been many studies assessing CHW programmes, particularly as regards their contribution to the attainment of the MDGs and now Sustainable Development Goals (SDG). There has also been international research looking at how CHW programmes improve access to community-based services and population health outcomes. Within South Africa, studies looking at the success or failure of WBOT provide descriptions of the programmes using methods such as process and output evaluations. They largely focus on output measures such as the number of CHWs, the number of teams established and deployed, the quality of staff recruited (literacy, training); and, descriptors of the teams established, thereby measuring performance in rather rudimentary and superficial ways (Nxumalo et al. 2013).

The limitation of these studies is that they do not provide information on the actual experiences of rolling out and scaling up the programme: on how CHW programmes evolved from policy on paper to reality as understood through the voices of the on the ground implementers.

Walt (2005) highlighted the urgent need for a systematic study to look at implementation experiences, including how the implementation was planned, led, managed and organised by each district across the country. The NIRN team highlight the need to focus on implementation elements including: the process of achieving minimum competency to carry out the required tasks; insight into how the programme is organised, led, and integrates into the health system architecture; and, the material and human resources they had at their disposal (National Implementation Research Network 2015). Furthermore, Weiner (2009) urged that there is a need for research studies to provide insight into the factors that constrain and enable implementation of WBOTs in order to analyse the organisational readiness for change (Weiner 2009).

1.3 Study justification

This study therefore on Ward Based Outreach Teams could not be more relevant as South Africa strives towards attainment of the international mandate set by SGD goals 3.8 that includes the attainment of universal health coverage, equity in access to quality essential health-care service; and, SDG goal 3.12 that includes health workforce investment, development, training and retention (United Nations 2015).

This study fills a gap that insufficient attention has been paid in the literature from an implementation science perspective to investigate and address major bottlenecks within and beyond the health system that impede effective implementation (Mogedal et al. 2013).

The importance and novel contribution of this study lies in its description and analysis of the WBOT staff and manager's perceptions on the initial implementation of the WBOT. The qualitative methods employed provide critical in-depth insight exploring the perceptions of the initial implementation experiences on the ground, exploring the contextual factors, constraints and enablers to implementation. The researcher is not aware of any other study on WBOTs that employs an implementation science lens to examine how CHWs experience and realise task shifting – the process of review and subsequent delegation of tasks from to the "lower" category that can perform them successfully from guidelines to the lived experiences on the ground. Another contribution to knowledge in this area is the documentation of perceptions of many key role players on the organisational readiness or lack thereof for change to be realised (WHO 2008a). This study will be useful to policy makers, district and provincial health managers, and academics to focus on initial implementation and organisational readiness for change in a more systematic way in order to achieve quality health outcomes.

1.4 Aim

The aim of this study was to record and analyse the views of community health workers, their team leaders and their managers on the initial implementation of ward based outreach teams (WBOTs) as an element of PHC re-engineering in the Ekurhuleni Health District.

1.5 Objectives

1. The study explored perceptions of CHWs and team leaders (WBOT staff) and managers on their views about the challenges and enablers of WBOT implementation;
2. The describes perceptions of WBOT staff and managers on their own readiness to implement the WBOT programme; and,
3. The study described perceptions of WBOT staff and managers on health system readiness to implement the WBOT model.

Chapter Two: Literature review

This chapter reviews the literature that describes comprehensive PHC, and specifically, the implementation of CHW programmes as central to achieving comprehensive PHC. There are four sections in this chapter. Section 2.1, describes the evolution of comprehensive PHC from an implementation perspective. Section 2.2, discusses national CHW programmes across the world, focussing on the factors that make these programmes successful. Section 2.3, focuses on South Africa's post-apartheid journey towards implementing a PHC approach and highlight the challenges that impede the implementation of sound and well-meaning policies in complex adaptive health systems. Finally, section 2.4 addresses on policy implementation, and describes the multiple ways of conceptualising implementation from a policy analysis and implementation science perspective.

2.1 Evolution of primary health care

2.1.1 Understanding primary health care

The adoption of the Alma-Ata Declaration in 1978, which identified PHC as the strategy for health for all, proved to be a significant turning point in the history of health care policy worldwide. PHC was defined as "essential health care" based on "practical, scientifically sound and socially acceptable methods." Affirming the principle of equity in health service delivery, the declaration called for care to be "universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain" and for these ideals to be achieved in a "spirit of self-reliance and self-determination" (WHO & UNICEF 1978: 1).

Informed by the principle of social justice, the declaration recommended that the PHC approach forms an integral part of the country's health system and contribute to overall social and economic development. This was to be done in such a way that it was the central function and focus. It would be the first level of contact with a given country's health system, with priority given to the most vulnerable and underprivileged people. In this way, PHC constituted the first element of a continuing health care process, and aimed to bring health care as close as possible to where people work and live (WHO & UNICEF 1978; WHO Regional Office for Africa 2008). With strong socio-political implications, the declaration advocated for a comprehensive care approach with community involvement and intersectoral action to address the social and environmental determinants of health (Dookie & Singh 2012; Schaay & Sanders 2008; Missoni & Pacileo 2009).

Translating the principles of comprehensive PHC into action requires countries to consider the complexity of the context in which health care was to be provided, in order to develop effective policy and implementation plans. Changes needed to be made in the health system, social and

economic sectors, and importantly, community structures and processes. Some important changes included the redistribution of existing financial, material and human resources. The health system itself required reform, which could include changes to the designing, planning and management systems in order to facilitate greater community involvement, intersectoral collaboration and decentralisation (Schaay & Sanders 2008). Health care workers need reorientation and a broadening of their skills to enable them to respond to the challenges of implementing PHC. Because a team-based approach was employed, team members needed to engage with professionals in other sectors and to facilitate community participation.

Following the delays in the development of implementation plans, in 1986, the WHO's Global Programme Committee promoted the district health system (DHS) as the unit within which the PHC approach could best be implemented, organised and coordinated (Hall et al. 2005; Schaay & Sanders 2008). The WHO's defined the DHS as follows:

> A DHS based on PHC is a self-contained segment of the national health system. It comprises of a well-defined population, living within a clearly delineated administrative and geographic area. It includes all institutions and individuals providing health care in the district, whether governmental, private, or traditional. A DHS therefore consists of a large variety of interrelated elements that contribute to health in homes, schools, work places, and communities. It includes all health workers and facilities up to and including the hospital at first referral level and appropriate laboratory, other diagnostic and logistic support services. Its component elements need to be well coordinated by an officer assigned to this function in order to draw together all these elements and institutions into a fully comprehensive range of promotive, preventive, curative and rehabilitative health activities (Hall et al. 2005: 45).

The district management structures were envisaged as a focus for the decentralisation of political power and resources from the central to peripheral levels of government. This was seen as a way to strengthen health equity (Schaay & Sanders 2008; Bossert & Mitchell 2011; Tarimo & Fowkes 1989). Some of its functions included: organisation, planning and management; financing and resource allocation; community involvement; intersectoral action; and the development of human resources (Blaauw 2015).

2.1.2 Implementation of primary health care from 1978

Despite the commitment to comprehensive PHC, and the development of health policy documents by many countries, the process of implementation of these policies was challenged. According to the World Health Organization's Regional Office for Africa (2008), the considerable diversity in country experiences in PHC implementation was due to a combination of factors that both shaped and limited the success of its implementation. Within country health systems in

Africa, the presence of weak structures, insufficient attention to PHC principles, and inconsistent political and financial commitment were among factors that affected implementation (WHO Regional Office for Africa 2008). The complexity of the factors impeding implementation of comprehensive PHC is more relevant in the global south because of the weaker health systems and a greater need for reform. The poor use of data to direct priorities and assess progress, especially at a district level, and in most cases, inadequate political will, also affected implementation (Lawn et al. 2008).

World events such as the oil crisis, global recession and structural adjustment programmes introduced by development banks in the 1970s influenced the national budgets of lower and middle income countries (LMIC), shifting them away from priorities services such as health (Chan 2008; Schaay & Sanders 2008). In response to the dominant influence of the World Bank and its market-driven approach, neoliberal health system models emerged (Missoni & Pacileo 2009). Selective PHC was introduced as an interim strategy to promote development, until governments in LMIC could afford the more complex, costly comprehensive approach. Although governments targeted the primary contributing factors of mortality and morbidity with known feasible treatments in a more cost-effective way, shortcuts to the PHC approach emerged (Mezzich et al. 2015).

Instead of reform, health systems were reorganised into silos, with vertical disease-driven approaches (Sanders & Chopra 2001). Selective interventions, epitomised in initiatives such as the United Nations Children's Fund's (UNICEF) Growth Monitoring, Oral Rehydration Therapy, Breast Feeding and Immunisation Programme campaign, undermined community participation and empowerment by paying little attention to local and cultural factors or to the social determinants of health (Schierhout & Fonn 1999; Tarimo & Fowkes 1989).

2.1.3 A return to comprehensive primary health care

The World Health Report (WHR) 2008 devoted to PHC, "Primary Health Care, Now More Than Ever" and *The Lancet* 2008 series, "30 years after Alma-Ata: Has primary health care worked in countries?" were milestones in recent debates of PHC. These policy documents shifted the debate from selective versus comprehensive PHC towards combining the strength of both approaches in health systems (WHO 2008c). The documents also provided evidence for building integrated health systems as a means to achieve the ideals of comprehensive PHC (World Health Organization 2008; Rachlis et al. 2013; WHO 2008b). The WHR called for care that was person centred and continuous rather than episodic and curative (WHO 2008c). It argued for a return to the principles of Alma Ata such as greater community based responsibility for health and joint partnership in managing the health of the population (World Health Organization 2008; Rachlis et al. 2013; WHO 2008b).

While the renewed interest in comprehensive PHC was welcomed globally, concerns emerged about the different meanings and interpretations applied to it (People's Health Movement 2011). This reflected confusion about or contradictions over the comparative importance attached to the comprehensive PHC approach to delivery versus the importance of the actual services themselves (Schierhout & Fonn 1999). Interpretations such as 'comprehensiveness of select interventions' remained clinical, technical and supply-side focussed (People's Health Movement 2011). Furthermore, the call for governments to address the upstream determinants of health based on the understanding of the link between poverty and health, fell short. There is no mention of the fundamental role of global neoliberal economic policies in reproducing the health disadvantage of poor people (People's Health Movement 2011; Missoni & Pacileo 2009). As a result, the new versions of PHC as described in the WHR and Lancet series seemed to shift the emphasis away from demand side barriers to accessing care, equitable socio-economic development, and, the need to set up sustainable district level structures, resulting in a more conservative and depoliticised version of PHC compared to the principles outlined in the Alma Ata Deceleration (People's Health Movement 2011).

The essential elements of PHC, fundamental to Alma Ata, including community participation and intersectoral action, could be marginalised as a result. This shifts the emphasis away from the establishment of health needs based on community perspectives in order to empower citizens (People's Health Movement 2011; Baum 2007). In this way the dominant curative, medical model and socio-economic and political hegemony remain unchallenged, resulting in maintenance of power of the status quo (Baum 2007).

The explicit health-related Millennium Development Goals (MDGs) provided a set of time-bound, quantified targets towards addressing extreme poverty that resonated with the declaration, however, the narrow focus on attainment of the defined goals was at the expense of other goals, and led to a more verticalised approach, instead of broader cross cutting investments and integrated health systems (Travis et al. 2004; Grove et al. 2015). The recent Sustainable Development Goals (SDGs) sets out a more comprehensive set of targets with new themes (such as climate change, water resources and energy production) that appear to focus more on equity, access and sustainability, and are more rooted in human rights. Critics of the SDGs say that while the goals establish a commitment to health for all in a more participatory way, specifically SDG three 'ensuring healthy lives and promote wellbeing for all at all ages', the aim of establishing a fair and transparent global system of financial regulation and tax policy is not addressed, and is a major flaw in addressing inequities (Hickel 2015).

2.2 National CHW programmes and primary health care

2.2.1 Community health workers – who are they?

Article VII.7 of the 1978 Alma Ata Declaration on PHC clearly established the role of community health workers (CHW) in comprehensive PHC stating:

> Primary Health Care….relies, at local and referral levels, on health workers, including … community workers as applicable, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community (WHO & UNICEF 1978: 2).

Since Alma-Ata, the WHO has promoted the wider use of CHWs as key drivers for comprehensive and integrated PHC (WHO 2008b). Research shows that CHWs are central to delivering PHC at a grass root level (Perry et al. 2014). CHWs are key players in meeting the goal of UHC because of their role in extending the reach of health systems by serving as a critical link between the communities where they live and the PHC system. CHWs therefore have the potential to be a powerful force for delivering health services to poor and marginalised people around the world and for promoting health behaviours (Bhutta et al. 2010; Lewin et al. 2006; The Earth Institute 2013; Theobald et al. 2015). As lay people who are embedded in communities, they are strategically located to understand their local context and the social determinants that shape health and wellbeing.

While it is difficult to generalise the profile of CHWs internationally, Lehman and Sanders (2007) highlight broad trends: CHWs are more likely to be female than male, varying in age groups and they have varying degrees of literacy. There are both generalist and specialist CHWs, each with different levels of training and skill level (Lehmann & Sanders 2007).

There is a plethora of evidence showcasing the effectiveness of large scale CHW programmes in improving population health, and in addressing priority health conditions in different parts of the world (Barron et al. 2010; Labonte et al. 2008; Perry & Zulliger 2012; Bhutta et al. 2010; Lewin et al. 2006; Lewin et al. 2010). The well-documented success of CHW programmes over the last few decades has resulted in a global re-emerging interest that has increasingly pushed investment in CHW subsystems to national and international policy platforms, as part of coordinated efforts to improve health-care systems. A systematic review demonstrated that the scale up of CHW interventions in India, USA, UK and Bangladesh contributed to improved rates of initiation of breastfeeding, and exclusive breastfeeding up to six months of age. In South Africa and Tanzania, CHW interventions to improve TB treatment outcomes compared favourably with institution-based directly observed therapy patient (Lewin et al. 2010). The PSF programme in Brazil led to a 32% drop in infant mortality within five years and a substantial increase in exclusive breastfeeding (Lehmann & Sanders 2007).

Other areas where CHW programmes have proven to have an impact include the reduction of infant and child mortality and morbidity (McCord et al. 2013). Many of the common causes of

paediatric mortality and morbidity include pneumonia, diarrhoea, under-nutrition, malaria, HIV/AIDS and measles. Furthermore, CHW programmes have shown improvements in health care seeking behaviour (e.g. increase rates of institutional delivery and immunisation); and the provision of low-cost interventions for common maternal and paediatric health problems while improving the continuum of care (McCord et al. 2013).

2.2.2 Factors that enhance or impede the success of CHW programmes

CHW programmes have a history of collapsing as a result of unmet goals. There are many factors influencing and contributing to their failure. In the context of fragile health and economic systems, many countries failed to develop a comprehensive plans, systematic processes for both implementation and coverage of CHW programmes (Bhutta et al. 2010).

In order to understand differences in CHW programme implementation, Walt (2005) posed important questions to find out what makes one CHW programme more effective than another. Walt (2005) examined numerous elements including the intervention design; its ease of use, understanding, and immediacy of use; its applicability, transferability and sustainability. She analysed the incentives or rewards, resources required, leadership and political will needed to sustain CHW programmes over time (Walt 2005). Furthermore, Snyder (2016) reported that the benefits of integrating CHWs into health care teams depend on how enabling or fragile the wider context is (Snyder 2016).

These questions draw attention to the importance of understanding the factors that influence the implementation of a policy within a complex adaptive health system. They highlight the importance of conducting in-depth studies of CHW programmes within specific contexts, rather than making loose comparisons that do not account for the political, economic, and other social determinants that might lead to the success or failure of the CHW intervention within a broader comprehensive PHC framework. For example, in Uganda, a country that has a relatively weak health system, it was acknowledged that Uganda's Village Health Teams received a short duration of training. In this context, strong supervision systems were put in place to compensate for the limited training (Bhutta et al. 2010).

Design factors that are associated with good performance of CHW programmes include on-going and refresher training; quality and frequent supervision; and performance management (Global Health Workforce Alliance 2010). Strong co-ordination and communication between CHWs and other health professionals increases the credibility of CHWs. This, along with the inclusion of motivational and advancement opportunities for CHWs and a mix of incentives, are also associated with good performance and a sign of effective human resource management (Kok et al. 2014). Good performance is also associated with the adoption of policies that

consider recruitment criteria, certification process, and professional advancement. Performance and quality is associated with include a clear job description for CHWs, accompanied by training content tailored to them (Bhutta et al. 2010).

An important and often neglected element of successful CHW programmes is the link between the CHW programme and the community (Kok et al. 2014). The closer the programme design considers the needs of the community (e.g., residence, gender, socio-economic position and disability), the greater the chance of achieving good health outcomes. In other words, the design must facilitate community participation by focusing on the sensitisation and mobilisation of the community (McCollum et al. 2016). Greater equity in access and utilisation will be achieved if services are free, CHWs are placed in close proximity to households and they have a pre-existing social relationship with the community (McCollum et al. 2016). Services targeting poor households, providing home-based services and strengthening the referral system to the facility enhance the quality of services and empowerment of the community (McCollum et al. 2016).

Design characteristics that may weaken CHW programmes often pose as common challenges to their functionality, sustainability and scale up. These include: poor planning, poor implementation, inadequate financing, poor commitment, unrealistic expectations or undefined job characteristics, lack of community involvement in design, recruitment and implementation, inconsistency of resources, lack of monitory or other incentives, and, the lack of training or supportive supervision (USAID 2010; McCollum et al. 2016; Bhutta et al. 2010; Kok et al. 2014). These factors, combined with a weak management and organisational structure, contribute to high rates of attrition, absenteeism, low work morale, and poor quality of work for community health workers. Such factors should be taken into consideration when designing and implementing CHW programmes (USAID 2010).

2.3 Primary health care system in South Africa

2.3.1 Post-apartheid primary health care: a move towards a PHC system – 1994 - 2009

Since the end of the Apartheid regime in 1994, the South African Constitution binds the state to work towards the progressive realisation of the right to health. The central task for the democratically elected state was to address the devastating effects of centuries of discrimination, disempowerment, underdevelopment, the legacies of apartheid, systematic poverty and unemployment of people of colour that still impact today. The ANC governments National Health Plan, premised on the concept of Primary Health as envisioned by the Alma Ata Declaration, proposed a systematic attempt to restructure the health system (Coovadia et al. 2009).

The first step was the unification of 14 separate health systems under a single department of health. The second significant step, in 1996, was the removal of user fees for PHC, resulting in free care for children younger than 6 years and pregnant women, and free primary care for all in the public sector (Naledi et al. 2011; Coovadia et al. 2009). The DoH's vision to decentralise the management and organisation of health services through the creation of a DHS, and the establishing community health centres (CHC) as the foundation of the national health system was outlined (Kautzky & Tollman 2008; Coovadia et al. 2009).

As the DoH made strides towards PHC, some of its achievements included the expansion of clinic infrastructure, as a mechanism to redress historical inequities in previously disadvantaged communities particularly among poor and rural people. This expansion entailed 1345 new clinics being built and 263 being upgraded, as well as the introduction of mass immunisations campaigns were also conducted (Coovadia et al. 2009). Legislation was passed to transform the health system, develop a PHC package of care, and a policy to develop an essential drug list and treatment guidelines (Kautzky & Tollman 2008). Within the first five years, a range of pro-equity policies emerged focussing on the social determinants in terms of social services delivery and public health, such as water, sanitation, housing and electricity supply and social grants, to provide some relief from the impact of poverty and unemployment (Coovadia et al. 2009).

Salient post apartheid policies include the White Paper for the Transformation of the Health System in 1997, the 1996 Choice on Termination of Pregnancy Act that legalises abortion, the 1999 Tobacco Products Control Amendment Act that prohibits smoking in public places and the 2000 Firearms Control Act that restricts access to firearms. In 2001, the Free Basic Water Strategy defined water as a social and developmental good and basic human right and in 2002 the Mental Health Care Act legislated against discrimination against mental health-care users. In 2004, the National Health Act was passed. This act legislates for a national health system incorporating public and private sectors and the provision of equitable health-care services. It provides for fulfilling the rights of children and mothers to access basic services, and legislates for the establishment of the district health system to implement primary health care throughout South Africa (Coovadia et al. 2009; Harrison 2009).

South Africa's PHC system was placed under stress by the HIV/AIDS epidemic. This was exacerbated by the reluctance of the government under then President Thabo Mbeki to implement the internationally recognised strategy to address HIV/AIDs, including the roll out of Antiretroviral Therapy (ARV) and community-based services for people living with HIV/AIDs (Dookie & Singh 2012). This resulted in a lack of public faith in the DoH's ability to provide effective stewardship in all spheres of health governance, and thwarted inter-sectoral

collaboration and community participation, two of the key tenets of a responsive and comprehensive PHC system (Nxumalo et al. 2013).

Following effective civil society action through the Treatment Action Campaign, the government responded with the National Health Act of 2004. This act returned to the principles of equity, efficiency, and sound governance, and put the goal of a decentralized health system back onto the health agenda. The Act encouraged participation and shared responsibility for health. It was accompanied by the 2004 Antiretroviral (ARV) program, and the two measures combined provided renewed hope in increased life expectancy and renewed efforts to strengthen PHC (Naledi et al. 2011).

2.3.2 Challenges to implementation of primary health care in South Africa

Despite the gains made in transforming the health system since the end of apartheid in 1994, the DoH struggled to realise improved health outcomes. Attempts to decentralise and establish PHC consisted of the development of many well-crafted health policies, but faced many difficulties in implementation (Coovadia et al. 2009). Many health system challenges and inequities in health service delivery can be traced back to the historical imbalances and legacy of apartheid (Dookie & Singh 2012; Harris et al. 2011; Holdt & Murphy 2007). Despite the policy advances, the disappointing pace of transformation was and remains complicated by the constraints imposed by path dependency, especially in previously disadvantaged regions of the country where health systems unavoidably continue to live out the legacy of dysfunction despite reformation efforts (Elloker & Olckers 2012; Prado & Trebilcock 2009). Moreover, South Africa's quadruple burden of disease also provides significant challenges for the health system. HIV and TB created a huge strain on PHC delivery (SANDoH 2015).

Gilson (2014) and colleagues explain that the complexity of the challenges overwhelm both "rational policy debate and the implementation of new policy" (Gilson, Elloker, et al. 2014: 2). Some of these challenges include the dearth of PHC governance, weak formal accountability mechanisms, complex rules and procedures, lethargy in prioritisation and action, and an organisational culture of deference to hierarchy (Gilson, Elloker, et al. 2014; Naledi et al. 2011).

South Africa has an institutional environment that resists both innovation and implementation of new learning, corrupt and crony appointments, and top down policymaking (Development Bank of South Africa 2008). Poor monitoring and assessment of policies throughout the system have become major obstacles to improving the health system. These "regulatory" (lack of accountability) and "structural" (weak DHS) fault lines have become the systematic roots of inadequate performance (Naledi et al. 2011).

As a result, the South African health system remains hospital-centric and specialised (Gilson, Elloker, et al. 2014). Health care is organised in programmes that are supply-side focused and often disease-specific verticalised interventions, with the problematic separation of community-, home- and facility-based functions (Naledi et al. 2011). Decision-making is driven more by service than by population needs (Gilson, Elloker, et al. 2014). There is inadequate human, political, and financial commitments to PHC, suboptimal use of material resources and a crisis in human resources for health (Dookie & Singh 2012). Further challenges include a weak health information systems and bureaucratic obstacles, creating inefficiencies in the supply chain management (Naledi et al. 2011; Nxumalo et al. 2016).

This has resulted in the continuation of the historical fragmentation of PHC service delivery, particularly in metropolitan areas where there are both local and provincial government. In 2010, an attempt to provincialise PHC did not materialise in some provinces such as the Eastern Cape after resistance from the metropolitan municipalities and the South African Municipal Workers Union (SAMWU) (Sema 2010; Mail & Guardian 2010). While those supporting the provincialisation said the move was an attempt to standardise services across the province, SAMWU stated “such a process “Provincialisation” of basic services results in the undermining of stakeholders such as communities and labour, significantly decreasing morale and resulting in litigation. Furthermore, in their experience when services are taken away from Municipalities, they deteriorate rapidly (Sema 2010: 1).

The weak compliance in establishing appropriate governance structures, such as district councils and clinic committees, further demonstrate the lack of responsiveness to community needs and community participation in health—two of the key tenets of a responsive and comprehensive PHC system (Nxumalo et al. 2013; Naledi et al. 2011).

The experience of sub-optimal services, with poor access and coverage of quality health care service, poorly coordinated care, lack of continuity of care, long queues, waiting times and overcrowding is commonplace. Overall, there remained limited progress in improving the social determinants of health, resulting in a move toward inequity and contributing to the rising burden of disease (Naledi et al. 2011).

2.3.3 A change in the policy environment in South Africa towards a PHC approach

The appointment of a new health minister, Dr Barbara Hogan, in 2008 revived leadership for health in South Africa, paving the way for a new era (Kapp 2009). She was followed by the appointment of Dr Aaron Motsoaledi in 2009. He initiated a wave of significant health sector reforms demonstrating political will and commitment to PHC, with the commitment to a defined goal: ‘a long and healthy life for al’ in the NSDA (Republic of South Africa 2010).

The pledge to improve PHC and put people first is reflected in the statement: “Re-engineering the health system to one that is based on a PHC approach, with more emphasis on promotive and preventive health care will underlie all interventions needed to achieve the outputs” (Republic of South Africa 2010: 5). One measure to do this was through strengthening universal coverage of primary care services, as detailed in the section on PHC re-engineering in the White Paper of the National Health Insurance (NHI) Policy (SANDoH 2015).

The PHC re-engineering model in South Africa, released in 2011, was designed with the vision of providing equitable delivery of services using a DHS as the institutional vehicle for the delivery of PHC (SANDoH 2012b; Paulus 2013). The model promotes delivering services in a comprehensive manner, focussing on improving health outcomes and reducing mortality and morbidity rates (SANDoH 2015; SANDoH 2011; Naledi et al. 2011). It represents a change in thinking from poorly co-ordinated, verticalised programmes to a more integrated, comprehensive, team-based approach. The DoH adapted the PSF’s innovative team-based approach to the South African context. This approach has a direct focus on the importance of effective team work in carrying out its role in mobilising the community; delivering health promotion and prevention; as well as prioritising maternal and child health, and HIV and TB (Pillay & Barron 2012). These teams must be well supported, guided by and accountable to the communities they serve (Naledi et al. 2011). WBOTs are expected to adopt an integrated approach in managing health problems, developing referral networks and engaging with community-based organisations, NGOs and government departments. WBOTs represent a change in thinking from poorly co-ordinated, verticalised programmes to a more integrated, team-based approach. Taking lessons from Brazil and Cuba, the model aims to pay closer attention to ‘upstream factors’, including the social determinants of health; improved quality of care though clinical governance and supervision at a district level; improving district management in terms of planning, budgeting and implementation and the strengthening of district hospitals (Pillay 2009; Paulus 2013; Naledi et al. 2011).

2.4 Policies and programme implementation in South Africa

2.4.1 Implementation experiences in South Africa

Global experience shows that the process of re-orienting health systems towards a PHC approach challenges existing ways of working (Gilson, Elloker, et al. 2014). To actively strengthen PHC, and make fundamental shifts how health system policies are implemented, it is important to understand the gap between the intentions of the policy and people’s experiences on the ground (Lehmann 2016).

While the DoH has established many good health care policies, the *implementation* of these policies has been identified as a significant challenge (Coovadia et al. 2009; Chopra et al.

2009). In a review of three policy initiatives from 2008 to 2010, Rispel and Moorman (Rispel & Moorman 2010) found that the policy environment in South Africa is plagued with fragmentation, a lack of co-ordination and an overlap of laws and policy initiatives (Rispel & Moorman 2010). Major weaknesses include lack of transparency and meaningful public participation in policy formulation; top down policymaking, poor processes and timing of policy implementation. These challenges result in the alienation of many stakeholders, particularly those responsible for implementation. Their study highlighted concerns of employees who are unacquainted with the department's health policies or its implications (Rispel & Moorman 2010). Other concerns related to the capacity to implement where the relevant institutions are ill equipped for change, and concerns related to the system's readiness to allow for change, in relation to what is required (Rispel & Moorman 2010).

Research in policy implementation in South Africa has shown that well-meaning policies may result in unintended consequences. The 1996 national policy that removed user fees showed that nurses, the central actors responsible for delivering free care, were most affected (Buse, Mays & Gill Walt 2012) . While nurses approved of the policy on increasing access in principle, in practice they experienced an unmanageable increase in their workload, with no increase in drug availability or additional staffing levels. This top-down policy left them feeling dissatisfied, because they had not been included in the process of policy formulation (Rispel & Moorman 2010). Similarly, rushed implementation of the Occupational Specific Dispensation Policy, which resulted in a salary increase for nurses without sufficient financial resources for implementation negatively influences the motivation and satisfaction of nurses who did not receive OSD (Ditlopo et al. 2013). The widespread disappointment created divisions between different cadres of nurses, and affected their performance (Ditlopo et al. 2013).

2.4.2 Frameworks for understanding implementation of new interventions in health systems

This section will show different frameworks from implementation science and policy analysis that help us understand and define implementation. Research on policy implementation and implementation science emerged out of a need to "explain, understand, and address problems associated with translating implicit and explicit intentions into desired changes" (Nilsen et al. 2013: 4). The frameworks presented more specifically help to understand the primary topic of interest in this paper, initial implementation. A framework called the IDF is also introduced to support our understanding of the installation phase of the NIRN Implementation stages.

There are the myriad of frameworks approaches, perspectives, models, and theories of implementation. Policy implementation research, housed in the social sciences, emerged from the insight that political intentions seldom resulted in the planned changes and has been around for a long time (Nilsen et al. 2013). From a policy analysis perspective, policy implementation is

defined as a process of turning a policy into action (Buse 2012). There is a large body of work from which to draw on from researchers who have investigated what occurred in the implementation process and how it affected the results. Some of the success of policy analysis research is its ability to demonstrate the influence of the context of implementation, and the values and norms of the implementers on the implementation processes (Nilsen et al. 2013). Salient approaches such as Realist Evaluation, Normalisation Process Theory, Walt and Gilson's context, content, actors and process framework, the Advocacy Coalition Framework, Governance Theory, and Institutional Theory, have contributed to improved understanding of the difficulties of implementing evidence in healthcare. Lipsky's theory on Street level bureaucracy has been instrumental in showing how hierarchical; command and control leadership practices do not take account of the reality of complex adaptive systems and policy implementation (Gilson, Elloker, et al. 2014). Hill and Hupe and Sabatier's have described policy making as either top-down or bottom up (Nilsen et al. 2013; Hill & Hupe 2013).

Implementation science research has its origins in the emergence of evidence-based medicine and practise in the 1990s and is at a relatively early stage of development. In recent years, researchers and policy makers have increasingly recognized the critical role of implementation science to reduce the gap between what has been shown in research to be effective and what is actually practiced in healthcare. While there are important parallels between implementation science and policy implementation research, improved knowledge exchange and cross-subsidisation between the two fields is necessary (Nilsen et al. 2013).

Both policy analysis and implementation science research deals with the challenge of translating intention into desired change, emphasising the importance of interdisciplinary research methodologies. While both fields have developed field-specific model and frameworks, implementation science researchers have distinguished between a number of individual determinants that are causally linked with outputs and outcomes, and considerable research effort has been devoted to investigating the effectiveness of specific driver, elements and strategies to affect these results. Whereas policy analysis research emphasized the inherent interdependency between various factor (Nilsen et al. 2013).

Against this backdrop of the difference possible approaches, implementation science was chosen as the primary lens of the study, complemented by policy analysis thinking. More specifically, the National Implementation Research Network' s Implementation Drivers Framework (IDF). In this work we have used the IDF to complement the NIRN Implementation stages as it helps explore drivers that enable or disable initial implementation. We have also used the concept of 'Organisational readiness for change', which overlaps with the installation and initial implementation stage of the NIRN Implementation stages. This is a useful concept because it considers both the psychological and technical resources that are essential for

implementation. The IDF was used to drive data analysis. My work examines/covers the installation phase (readiness) and the initial implementation phase.

The NIRN state “implementation [of programs] is not an event, but a process of carefully considered organisational adjustments that unfold over the course of two to four years” (Bertram et al. 2013: 7). Identifying key elements as prerequisites for successful implementation, they devised the formulae for successful implementation (figure 3) as follows: effective intervention X effective implementation plan X enabling context = will lead to socially significant outcomes (Bertram et al. 2013; NIRN & Duda 2013; Fixsen et al. 2015)

Figure 3: Formulae for successful implementation

Source: (NIRN & Duda 2013)**.**

This change process occurs in different phases, called the implementation phases, as shown in figure 4 below:

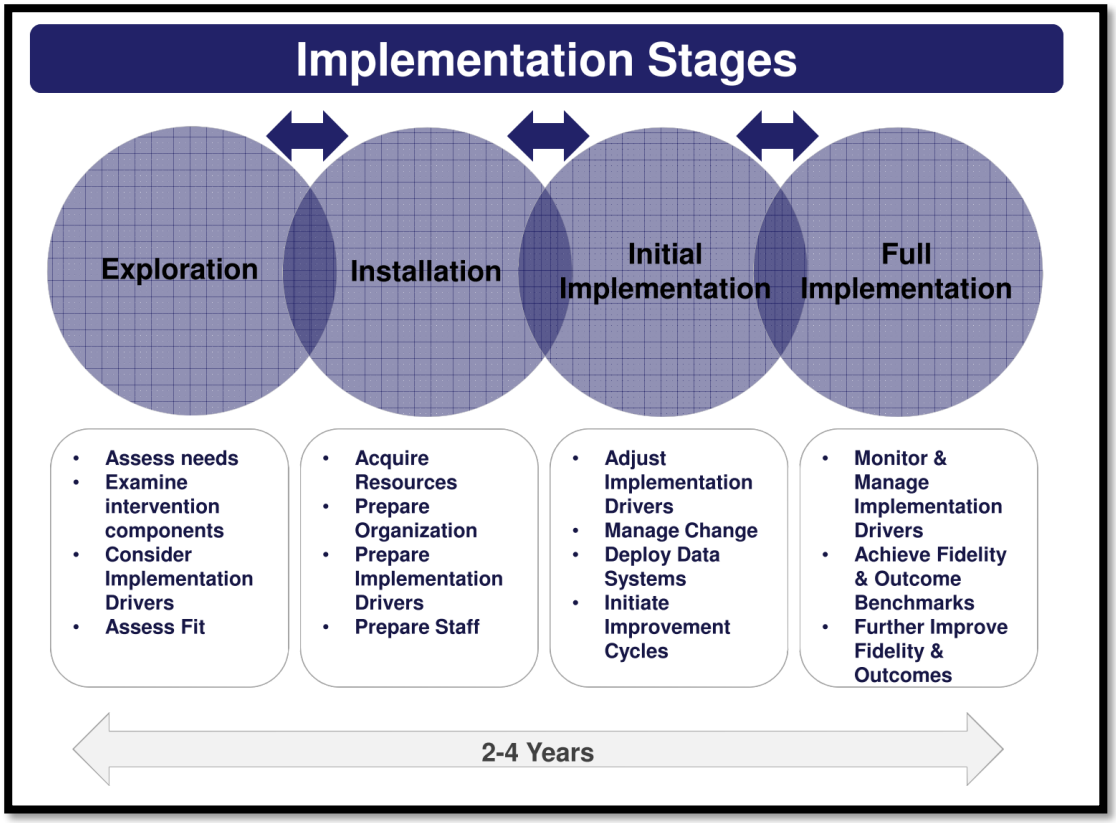

Figure 4: Implementation Stages

Source: (NIRN & Duda 2013)

Within this theory of change, change occurs within the whole organisation, which is (re)designed to yield positive socially significant outcomes (Bertram et al. 2013; Fixsen et al. 2015). Implementers are able to purposefully match critical implementation activities to the appropriate stages of the implementation process. This approach aims to help organisations identify gaps, organise, and develop capacity to promote effective implementation (NIRN & Duda 2013).

The gap between science and implementation can occur at different stages. For instance, the innovation selected may not be used with "fidelity", to the degree to which the WBOTs intervention is implemented as intended (SISEP & NIRN 2013; Bertram et al. 2013). In another scenario, the innovation might be changed for the purpose of fitting into the system, or else, it may operate in the shadow of the system, as a ghost or parallel system. Another challenge could be that the intervention is used with fidelity, but is not sustained for a useful period of time, or not used on a scale sufficient to broadly impact outcomes (Fixsen et al. 2015).

The first "exploration" stage focuses on design of the intervention based on a needs assessment that should lead to a match between the "target population characteristics, organisation and community resources, and the program model's key elements, activities, and phases (model definition), theory base(s), and theory of change" (Bertram et al. 2013: 9). This process is essential in order to design effective intervention at the onset. The NIRN team emphasise the stages do not operate in a linear progression, but instead, may require reorganisation and adjustments at any point in the implementation process. Applied to South Africa, the development and release of the 2011 PHC re-engineering guidelines took place in this exploration phase.

The second "installation" stage is the readiness stage, which requires moving beyond consideration and planning to systematically addressing each implementation aspect. In this stage resources are acquired, staff and context are prepared, and the preparation of all aspects of the implementation occurs. For this purpose, the Implementation Drivers Framework (IDF) is useful as shown in figure 5 below (Fixsen et al. 2015). The NIRM team defines implementation drivers as "key components of capacity and support that enable a programme's success". The three categories of Implementation Drivers Framework are competency, organisation, and leadership.

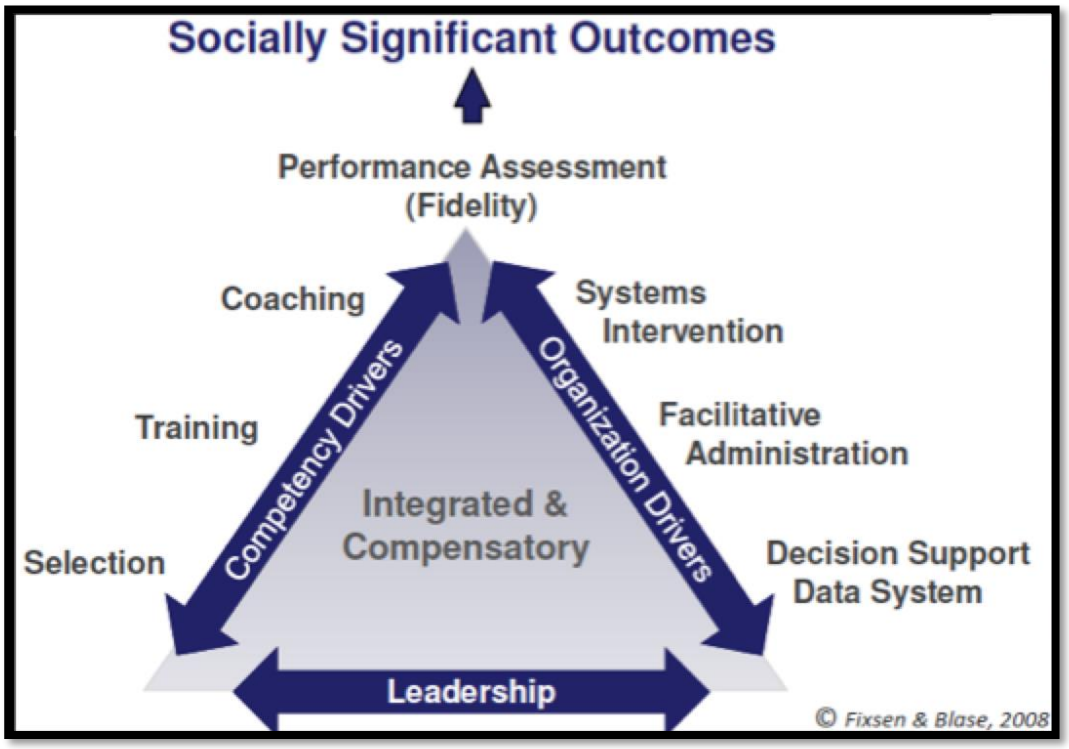

Figure 5: Implementation Drivers Framework

Source: (NIRN & Duda 2013)

Competency refers to the district's collective ability to develop, improve and sustain its ability to implement the WBOT strategy as intended, in order to benefit the community living in the ward (SISEP & NIRN 2013). The competency components help to develop, improve, and sustain competence and confidence to implement effective practices and supports.

The organisational drivers refer to management processes that create an enabling context in which the WBOT intervention can be implemented (SISEP & NIRN 2013). The organisation component helps ensure sustainability and improvement at the organisation and systems level. Finally, the IDF defines the leadership drivers as the leadership processes used to transform the system and create change (SISEP & NIRN 2013). These processes helps guide leaders to use the right leadership strategies for the situation (Fixsen et al. 2015). The IDF will be used in this study to organise the implementation experiences in the results chapter. This is relevant because the research took place in the 'installation and initial implementation stage of the research' where the assessment of the key components of implementation will provide insight into the district's progress in enabling the success of the WBOT programme.

The third "initial implementation" stage commences when the organisation is ready to initiate implementation. In this stage, data management systems are pivotal to inform adjustments and improvements. The final "full implementation" stage, where fidelity is the focus, and the change process is continually monitored to ensure that a socially significant outcome is attained

(Bertram et al. 2013). In my study, this stage is not reached, and will not be discussed.

2.4.4 Organisational Readiness and how it fits into implementation

Readiness is an essential part of successfully implementing an innovation, programme or policy; and is often a precursor to successful organisational change (Weiner 2009; Scaccia et al. 2015). Readiness for change is associated with a positive organisational culture (Ochurub et al. 2012). In terms of the NIRM implementation stages described above, readiness is a core activity in the second "installation stage" (figure 4) of implementation (NIRN & Duda 2013).

Organisational readiness is a shared psychological state whereby members feel a collective commitment to implement organisational change in order to achieve the desired result (Weiner 2009). This approach attempts to consolidate the need for both structural and psychological views of organisational readiness. It takes into account that organisational structures shape perceptions about a programme (Weiner 2009). In other words, the presence of structures that support implementation influence how the organisation values the change and how people appraise the determinants (Shea et al. 2014). The major determinants for readiness for change are resources available for change, the leaders' orientation, the qualifications of employees, the quality of supporting systems including information systems, and the organisation's structure (Mathew et al. 2014).

Change efficacy is expected to be high when organisational members know what to do and how to do it. Members who perceive that they have all the resources they need to implement change, and who consider the situational factors such as timing to be favourable, will also have a greater efficacy towards change (Weiner 2009). Furthermore, Weiner (Weiner 2009) explains that organisational members must collectively value the change, viewing it as important, beneficial and worthwhile. In other words, they must have a high level of change valence, in order to show commitment to the change process (Weiner 2009).

Scaccia (2015) and colleagues propose that motivation to implement an innovation is central to organisational readiness. The general and innovation-specific capacities of an organisation are also important components (Scaccia et al. 2015). To Barrera (2008), readiness for change is significantly related to; organisational commitment, intrinsic and extrinsic job satisfaction, and years employed (Mathew et al. 2014). On the specifics of the change, Alhaqbani (2013) emphasise that the organisation should include employees in decision-making to avoid resistance to future change (Mathew et al. 2014).

An immediate outcome of readiness is organisational members' change-related effort. For example, when readiness is high, organisational members are more likely to initiate the change, exert greater effort in support of the change, exhibit greater persistence in the face of obstacles,

and display more cooperative behaviour. This results in more effective implementation of the proposed change (Shea et al. 2014). Conversely, when organisational readiness is low, members are more likely to view the change as undesirable and subsequently avoid, or even resist, planning for the effort and participating in the change process (Shea et al. 2014).

Chapter Three: Methodology

3.0 Introduction

This chapter, describes the research methods used specifically the study design, methodological choices; study population; sampling method; data collection; data management and analysis; ethical considerations; and, the duration of the study.

3.1 Study design

A qualitative study consisting of key informant interviews (KIIs), focus group discussions (FGDs) and ethnographic observations was conducted. Qualitative research was considered to be appropriate because it allowed for an in-depth understanding of the perceptions and dynamics surrounding the implementation of WBOTs, thus answering the study aim and objectives in the most effective way (Lisa 2008). Qualitative methods allowed for the exploration of social and political, interactive and complex phenomena that influenced the implementation of the policy.

3.2 Study setting

Ekurhuleni Health District: background information

Since the intention of this project was not to compare or contrast different experiences of WBOT implementation/CHW programmes but rather to focus on one particular setting, the Ekurhuleni Health District (EHD) was purposively selected as the WBOT programme had been implemented for a period of six months or more at the time of the study.

Ekurhuleni District is located in the Gauteng Province, which is considered the economic hub of the country, characterised by a combination of wealth and areas of extreme income inequality and poverty. Ekurhuleni District is one of five health districts in the Gauteng Province. The district is further subdivided into three sub-districts: the North, South and East sub-districts (City of Ekurhuleni 2014a). There are nine towns, 16 townships and 119 informal settlements across the district (City of Ekurhuleni 2014a). Municipal wards are the smallest geopolitical entity; and, there are 101 municipal wards in the district (City of Ekurhuleni 2014b). Figure 6 shows all of the ward divisions in Gauteng, with a circle around the Ekurhuleni District. Furthermore, the variations in wealth distribution across Ekurhuleni are also apparent given the gradation of mean income per ward as a percentage of the mean income for Gauteng (2011) (GCRO & Wray 2011).

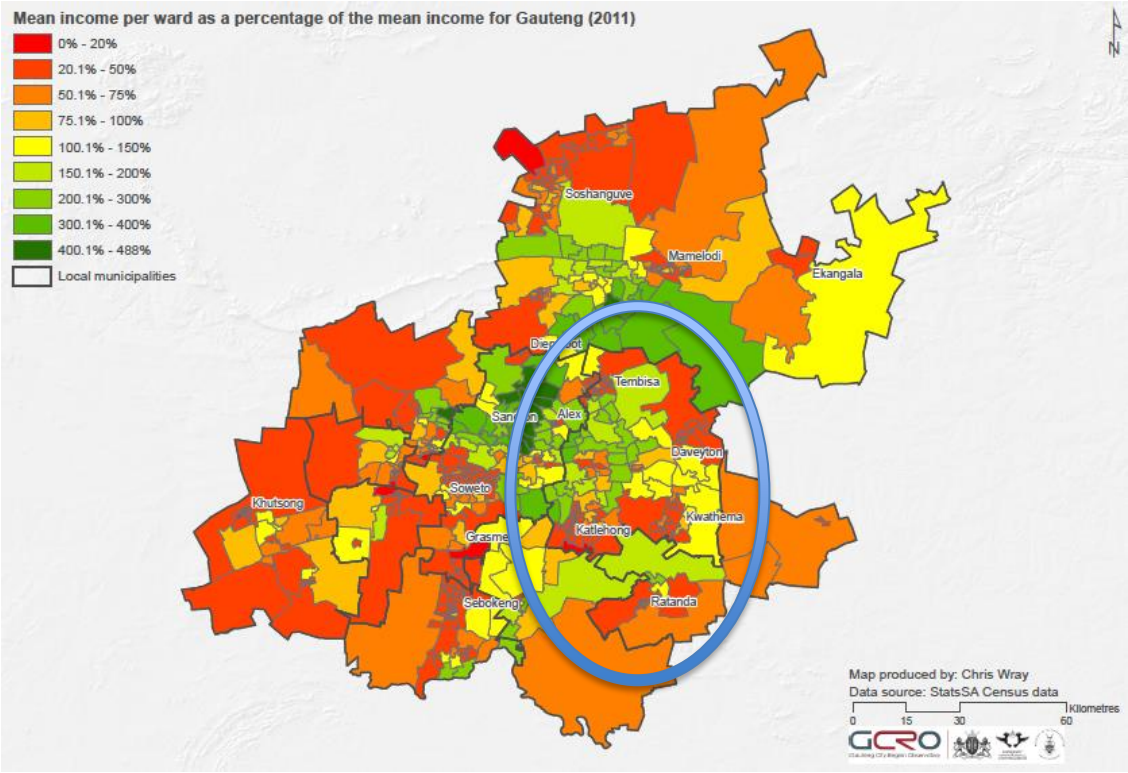

Figure 6: Mean income per ward as a percentage of the mean income for Gauteng (2011) (GCRO & Wray 2011)

The population of Ekurhuleni is approximately 3.18 million people (City of Ekurhuleni 2014a). The district has a population density of 1609.4 per square km, compared to Gauteng as a whole at 680.6 people per square km, and a national average of 42.8 per square km (City of Ekurhuleni 2014a; City of Ekurhuleni 2014b). Between 2001 and 2011, Ekurhuleni had a population growth rate of 2.47%. It is characterised by ethnic diversity due to high levels of in-migration by local and foreign nationals. This population growth rate outpaced the national one, resulting in more service delivery challenges and large numbers of low-skilled young people, many of whom were unemployed (City of Ekurhuleni 2014b). Housing is a major challenge, especially in the district's 119 informal settlements, which are characterised by overcrowding in shacks in backyard dwellings. See Table 1 for a summary of demographic information, providing the background socio-economic context for this study (City of Ekurhuleni 2014a; City of Ekurhuleni 2014b).

Table 1: Contextual demographic information – Ekurhuleni District 2011-2013 (estimates):

	2011	**2012**	**2013**
Unemployment Rate	30.6%	29.8%	29.3%
HIV Prevalence Rate	30.1%	17.8%	15.3%
Proportion of households with no income	Not available	17.8%	Not available
Proportion of population in low- skilled employment	3.4%	3.3%	Not available

Illiterate people older than 15 years	9.6%	9.3%	9.3%
Access to private tap water inside yard of property (may be in or outside house)	30%	Not available	Not available
Access to water from the community stand (distance from property)	7%	Not available	Not available
Household electricity usage (lighting)	82.2%	Not available	Not available
Access to flush toilet (in yard, or community)	87.6%	Not available	Not available

Health Care Provision

Health care provision in Ekurhuleni is governed by two health authorities: the local government authority (LGA) and the provincial health authority (PHA) of Gauteng province. Historically, the LGA had been the main provider of PHC, responsible for health promotion and disease prevention services. These services were delivered through clinics. Clinics in South Africa are defined as facilities at and from which, through outreach, a range of PHC services are provided, but that is normally open only eight hours a day (Cullinan 2006). There are 66 clinics managed by the LGA in Ekurhuleni (City of Ekurhuleni 2014a).

There are eight CHC's in the district that are managed by the Gauteng provincial health department. CHC's are defined as facilities that, in addition to a range of other PHC services provided at clinics, normally provide 24-hour maternity and accident and emergency services. While there are variations on the ground, CHC's are meant to have up to 30 beds, a few procedure rooms, but no operating theatres (Cullinan 2006).

The 2014 annual Ekurhuleni municipal report explains that attempts have been made to integrate services with the province, in the spirit of provincialisation. However, this process was never completed, resulting at times in the duplication of management and service delivery processes (City of Ekurhuleni 2014a).

The total health expenditure in the district on PHC per capita was R675 in 2013/4, which is close to the average in the country at R673 per capita for the same year. The PHC utilisation rate in Ekurhuleni was 1.9 visits per person per annum in 2013/14, which is below the national average of 2.4 visits, and the lowest in the country (Massyn et al. 2014).

3.3 Study population

The population for this study included all CHWs and team leaders (professional or enrolled nurses) who formed part of an established WBOT in EHD by September 2014. Key informants in managerial positions were also eligible. The interviews were conducted over a period from September 2014 to March 2015.

3.4 Study sample

In September 2014, six WBOT teams attached to PHC health facilities that had been operational for at least six months in EHD were chosen as sample sites. The facilities were selected by a senior EHD manager on the basis that the six WBOTs were not part of any other research study and agreement had been obtained from the team leaders. Five focus group discussions with community health workers were held and there were between seven and 12 participants in each group. A total of 51 community health workers participated in the focus groups. Six WBOT team leaders were purposively selected. Key informants working in managerial positions (in the clinic, CHC, ward, or district health system) identified by team leaders and CHWs who were involved in implementation of the WBOT, were selected for key informant interviews. See Table 2 for details of the participant's interviewed in the study.

Table 2: Study sample

Key Informant Interviews:	**Total number IDI**
Team Leaders	6
Clinic manager	3
Health Promoter	1
NGO Manager	1
Sub-district Managers	2
Family Physician	1
Focus Group Discussion	**Total number of FGD**
Community Health Workers	5 (n=51)
Total study participants	**71**

3.5 Data collection

3.5.1 Focus group discussions with community health workers:

The researcher conducted all the focus group discussions (FGD) using an interview schedule outlining key topics to be covered (see Appendix D). Focus groups consist of small numbers of people brought together by the researcher to discuss a specific topic. The moderator guides the interview (Webb & Doman 2017). The interview schedule was developed based on the initial objectives of the study. The schedule was not informed by theory. The focus group methodology was explicitly chosen to solicit views that were augmented through the group interaction and dynamics. FGDs lasted between 60 - 90 minutes and were held during working hours of CHWs. FGDs were held in clinic board rooms and consulting rooms where auditory privacy could be assured. One FGD took place outside in the back yard of a two-roomed clinic (as there was no space in the two-roomed clinic). Details of the CHW characteristics are listed in Appendix C. All five FDGs were digitally recorded once consent (see Appendix K and L) was obtained

CHWs who agreed to partake in the FGD were asked to complete a short self-administered questionnaire, capturing basic socio-demographic information. This included information on the number of months or years working in their current position, age, and education (see Appendix J). They were also given information letters (see Appendix G). Member checking by the researchers supervisor took place, through one site visit where data was collected. This process ensured proficiency with the FGD method.

3.5.2 Key informant interviews with team leaders and managers

The qualitative research interview seeks to describe and analyse the meanings of central themes in the life world of the subjects. The main task in interviewing is to understand the meaning of what the interviewees say (Kvale 2006). The researcher conducted all key informant interviews (KII) using an interview schedule (see Appendix E and F) with the nurse team leader and managers. Interview schedule was developed based on the initial objectives of the study. The schedule was not informed by theory. Following the nurse team leader interview, s/he was asked to identify key informants. Team leaders and managers identified a room where auditory privacy could be assured. Interviews were conducted in English and lasted between 60 - 90 minutes. All 14 interviews were digitally recorded after consent was obtained.
Informed consent (see Appendix M, N, O and P) and interviews were conducted in English. As the primary researcher is an English-only language speaker, questions were posed in English, while offering the option for participants to respond in whatever language they felt most comfortable. Most participants opted to speak in English. Participants were given information letters (see Appendix H and I).

3.5.3 Ethnographic observations

Through this research, detailed field notes were taken from personal observations during each site visit. Areas of observation included: descriptions of the ward community and clinics, quotes and summaries of conversations, impressions of people's everyday activities and participant observations (or shadowing) of CHWs' interactions when conducting home visits. Longer observations occurred in some wards than others. Field notes were also taken when accompanying CHWs by foot from the clinic to households to meet patients on three separate occasions. The field notes helped to further contextualise the themes that were identified in the analysis. These were codified in the researchers journal.

3.5.4 Quality control

In order to achieve trustworthiness, reliability and transferability of the data, triangulation was and member checking was used. Feedback was provided to EHD at the Ekurhuleni Research Conference in a 15-minute presentation of the research findings. Managers, health care workers and staff employed in the EHD were in attendance.

3.6 Data management and analysis

An external professional transcribed all audio recordings of the interviews into MS Word. All 19 recordings were listened to by the author to moderate, fix, crosscheck and validate the transcribed documents. All field notes were transcribed on MS Word, and anonymity was at all times maintained.

All transcripts and field notes were exported into MAXQDA 12, a qualitative research analysis software programme designed for computer-assisted qualitative and mixed methods data, text and multimedia. Analysis began during the fieldwork process. Analysis involved coding text segments across all transcripts and field notes using inductive coding. Inductive coding involved identifying codes from the transcript rather than having predefined codes (Hennick et al. 2011). This allowed themes to emerge from the research. In addition, some topic codes were identified based on the questions asked in the interview schedules (Appendix E, F and G) as well as the study objectives (e.g., implementation challenges). A codebook with a definition of each code was developed in MAXQDA. Inter-coder agreement was reached by having a subset of the coded-transcripts assessed by the research supervisor (JE). The research only drew on the Implementation Drivers Framework (IDF) at later stage. Topic codes were also identified through the framework resulting in having both inductive and deductive codes. Examples of deductive codes include: leadership, coaching, training and selection. Examples of inductive codes that were identified: unmet service expectations, career path.

Emerging themes were identified based on the codes. During the process of analysing the data, it became apparent that most of the themes aligned with constructs of the National Implementation Research Network's Implementation Drivers Framework (IDF) (SISEP & NIRN 2013). The IDF fits into the second "installation stage" of the NIRN Implementation Stages, which corresponds to the point in time when the research took place in the district – approximately two years after implementation. The context in which implementation occurred was also an important theme, as derived from the NIRN formula for success. Further exploration of patterns in the codes and themes was informed by the framework, which provided structure to the writing up. Where necessary, quotations were edited to improve readability.

3.6 Ethical considerations

Ethics approval to conduct this study was granted by the University of the Witwatersrand Human Research Ethics Committee (Medical) (Certificate No M130819) in November 2013 (see appendix Q).

Permission to enter the facilities where WBOTs work was obtained from:

A. The Gauteng Provincial Health Research Committee, which reviewed the protocol (P020214) in February 2014 (see appendix R); and,
B. The Ekurhuleni District Research Committee, which issued a research clearance certificate in August 2014 (see appendix S).

Upon arrival at a site, permission letters from the provincial and district office were given to clinic managers. The purpose of the research was explained to all participants and information sheets were distributed (see Appendix A). Participants were invited to ask any questions about the study. Signed informed consent forms for both participation and audio recording were obtained from all participants. Participants were informed that they were free to withdraw or to stop the interview or FGD at any time, and that participation was entirely voluntary.

Confidentiality of FGDs could not be guaranteed. While participants were requested to keep the discussions confidential, it is not possible for the researcher to guarantee that participants did not share information with others afterwards. The data produced for the research were securely and anonymously stored. Furthermore, participants were anonymised in all transcripts and analyses. Care was taken not to reveal participants' identities to transcribers or research supervisors by removing identifiers when sharing information. Numbers were allocated to participants instead. All respondents were informed that there would be no direct benefit to them, nor any monetary or other reward for participating in the study. All data will remain securely stored for a period of two years after the end of the study as required by the Wits HREC, and thereafter destroyed. The EHD have no objection to naming the district in the presentation or research report. All facility names have been kept confidential. In order to protect anonymity, a general category of managers was used, rather than referring to specific positions, which could be identifiable.

Chapter Four: Results

The results that follow reflect the perception of the participants' experiences of initial implementation. This chapter has two sections, which form two parts of the formulae for successful implementation that have been examined. The first section examines the 'how/ who – implementation methods' by focusing on the drivers of implementation using the National Implementation Research Network's (NIRN) Implementation Drivers Framework (IDF). These deal with the installation phase and initial implementation phase of the NIRN implementation phases. The second section examines the 'where – enabling context', by describing the context in which the WBOT is implemented. Some of the quotations were edited for clarity.

4.1 Implementation drivers

The IDF was used to organise and consolidate the rich and vast data set in order to identify both challenges and enablers in the implementation experience, and to understand the readiness for implementation, in the 'initial' implementation stage. Overall there are several weaknesses underscoring the current implementation of ward-based outreach teams.

4.1.1 Competence drivers

Competency refers to the district's collective ability to develop, improve and sustain its ability to implementation of the WBOT strategy, in order to benefit the community living in the ward (SISEP & NIRN 2013). This section of the results reports on the mechanisms and activities that were put in place in order for the individuals in WBOT teams to achieve the competency as expected by the guidelines. In their words, they reflect what actually happened in terms of selection, training and coaching (see figure 7).

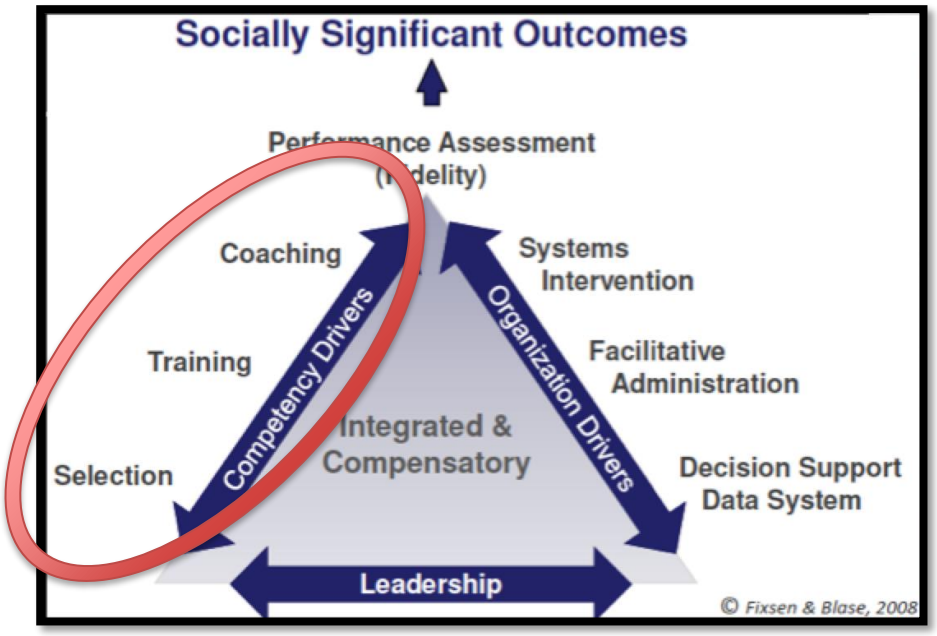

Figure 7: Implementation Drivers Framework: Competence Drivers

Source: (NIRN & Duda 2013)

4.1.1.1 Selection of WBOTs for competency

Selection of CHWs

A total of 51 CHWs participated in the FGDs from five WBOT teams. Of these, 41 CHWs were women and ten were men. The age of the CHW varied, with 43 between the age of 20 and 40 years and eight CHWs were between the ages of 40 and 55 years. Most of the CHWs were newly appointed, with 40 working for 6 to 12 months in the WBOT programme. The remaining eleven, all part of one team, were appointed for one year. CHWs spoke a range of languages, and participants reported the most common language to be isiZulu, followed by SeSotho (see Appendix C).

The composition of the six WBOTs in the study did not meet the criteria in the WBOT which stipulate that a professional nurse team leader must supervise six CHWs. The choice of CHW selected was to some extent arbitrary. Most had been home-based carers, TB Direct Observed Treatment Supporter (DOTS) and HIV councillors working for NGOs and were then recruited into WBOT program as community health workers. As a result, the basic skills and abilities of the CHWs varied, and in a few cases, were extremely limited.

> I've got even the one lady there, she can't write, she can't read. You see, that is why, even with the training there must be minus or plus with this languages. (M 6)

Participants in the study demonstrated a willingness to work as a CHW, to attend training sessions and to be supervised by team leaders, which are positive driver of implementation. They demonstrated dedication and commitment to sharing their knowledge, supporting those in need, overcoming cultural barriers and adapting to the needs of the community they served. CHWs felt able and willing to carry out the expected tasks, and to learn new information and skills. CHWs respect for their community was evident in how they approached the community and their willingness to adapt to the needs of the community.

> [Community members] understand that we are working with them. We go [to the house] and see whether the child is growing well and we teach [caregiver] about the nutrition. If the child has to take the ARV's [antiretroviral therapy], we teach [the caregiver] about ARV's. If they say 'no don't enter' in that home, so we don't enter, but we are still teaching the mother. Even if the mother doesn't want us inside the house, no we even stand outside and talk. But privately. Like we are not saying [that] because you don't want us that means I am not going to work with you. Because people they having their own explanation why they do those things. (FGD 2)

Selection of team leaders

A key challenge in the Ekurhuleni district was the shortage of professional nurses to function as Team Leaders. Enrolled nurses were appointed instead despite concerns by WBOT coordinators, clinic managers and the family physician that they lacked the required prerequisite skills, abilities and competency to lead WBOT teams effectively due to their lack of PHC and midwifery training:

> We don't have professional nurses to act as outreach team leaders, it [the programme] seems not working because of that. They now put enrolled nurses and they know nothing. This programme needs somebody who knows midwifery; who can manage pregnant woman, children, babies; who knows how to immunize babies. So the enrolled nurse it's not their role, they don't know immunisation, or antenatal care. It's a big challenge yes, because they can't even mentor community health workers. They just come to write the stats, they can't even interpret the report at the end of the month. They are even confused about [WBOT]. (M 8)

Of the five-team leaders in the study, two were professional nurses and three were enrolled nurses. The enrolled nurses were young, newly appointed staff members of the health facility. One, who had limited clinical experience, did not always feel able to carry out tasks, and needed support from senior staff at the facility. She felt that her inexperience impacted the facility staff's acceptance of the programme:

> [Nurses in the clinic] were complaining that how can they employ an enrolled nurse to lead WBOTS, because it needs someone who is PHC trained. So normally, if I have challenges that I can't solve, I go to someone who is PHC trained and I ask them, this is how you deal with this. (TL 1)

Most team leaders explained that they felt passionate and enthusiastic about the WBOT programme. They were motivated to do their job and showed a willingness to develop their skills and competencies to support the programme. One team leader explained that despite the challenges she faces, she goes out of her way, using her own resources at times, as a result of being motivated by CHWs in her team.

> CHWs want to help, that's their goal. So when you work with people like that, like every time they are having power, and they push to do their best. You know what motivate me, as a [team leader] I need to be active and support them. If they ask me a question, the minute I have answers, then I need show them that I know. Even though I am not around working with CHWs every day, but I am there so that's motivates them. Most of them are older than me, I need to respect them so that they can give me back that respect. So it is all about respecting each other and doing the work. (TL 6)

4.1.1.2 Training of WBOTs

Training, from an implementation perspective, is an active process. It needs to be purposeful to the skills required for the programme and informed by adult-learning processes (SISEP & NIRN

2013). The training must be designed to support WBOTs in acquiring the skills and information needed to begin a new programme. The results from study are explained below.

Process of implementing WBOT training

Once recruited into the programme, WBOT guidelines outline three phases of training for the team. The first phase was initially supported by the Foundation for Professional Development (FPD), an independent organisation contracted by the Ekurhuleni district in 2011 to train newly formed WBOT teams.

> In 2011 and 2012, our CHWs were train[ed] by FPD. [CHWs] were given manuals for ten days training. FPD was giving tool books [with] practical work inside. (M 8)

Phase one training for team leaders consisted of five days of theory training; and ten days of theory and five days of practical training for CHWs. Theoretical training was presented using slides prepared by the DoH. CHWs were taught the content of the training manual and the method of filling in the data collection tools. Training material was all in English. Practical training took place in the community, where CHWs practised the skills learned with the aid of an instruction manual. A manager explains the importance of the practical training:

> [Practical training] is so important because inside that tool book is where as CHWs, we learn about the antenatal care. They emphasise the visits that the CHW must attend and what to do. It's written there. And what to teach when you are there, it's inside the tool book. (M 8)

A manager explained that the district took over the responsibility for training in 2013. CHWs who received theory training by the district were not provided with the practical training or kit bags, which affected their ability to practice their newly acquired skills, especially the maternal and child health assessments.

> So with the Government, Government started to train since 2012/2013. FPD stopped training our CHWs and I didn't mention even the bags. Government is only giving manuals, no tool book to train them during the five-day practical's. (M 8)

FPD issued teams with the training manual and a kitbag filled with supplies. CHWs reported that bags contained the following resources: gloves, raincoat, a few first aid item such as a mouthpiece for resuscitation, umbrella, hat, a small bottle of disinfectant, gauze, a few nappies, cotton wool, torch, scissor, measuring tape, sanitary pads, linen savers and a compass. CHWs complained about the poor quality and low quantity of the consumables/ supplies provided. After two years, when the district took over, and kitbags were no longer provided.

> FPD brought us bags with [resources] like gloves and stuff. Very poor quality, [CHWs] had those bags for a year. They are torn; umbrellas were blown out by the wind. So now they are using their own bags and they are complaining. The teams establish[ed by the district] last year didn't [get] any bags. (M 7)

For some CHWs and team leaders, management delays resulted in a long delay between attending their training and the date they started working in the field. One team leader was trained three or four months prior to the start of the programme, and as a result, she was not able to recall all the information from the training.

> We were trained last year February 2013, but we started to work in February 2014 (FGD 4)
>
> [Training was] last year [when the] programme [had] not yet started. So I have to wait approximately three to four months before the programme started. So, like, I'm lacking most of the information. (TL 4)

Despite the limited training, some CHWs showed commitment to the programme by self - studying the manuals in their spare time at home.

> We also have manuals right, so you just have to go through the manual at home. And we do that? The manuals are helpful. (FDG 2)

WBOTs teams only received the first phase of training, with no additional training since the end of the data collection phase,

> But first when we were trained, they said it's three years training. We're going to make two weeks in first year, then two weeks in second year, then two weeks in third year. Since we trained in 2011 and we are still waiting for the second training. (FGD 1)

Perceptions on quality of WBOT training

CHWs and team leaders did not comment on the content of the training, but they all felt it was "useful and the training was good." When commenting on the quality of the training, the language and understanding of the manual, CHWs felt it was "not that difficult". However, CHWs explained that they visited many people who are very ill, presenting with conditions and symptoms that they have not heard of and don't understand. The felt the training they received did not equip them to deal with these conditions:

> I would say we don't have enough training. When you out in the field, daily you learn something new. For instance, I didn't know about schizophrenia, umbilical hernia and stuff, but now I've heard of those words, but I don't know what they mean. So really, we should get more training. (FGD 1)

Participants felt that ten days for CHWs and five days for team leaders were too short to cover all the content in the training manual. Many CHWs could not complete the data collection forms, despite being trained. The majority did not receive on-going training.

> When [CHWs] came back from training, they still didn't understand the forms. [It] was two weeks, which was not enough… [It must be at] least three months then they must get a certificate, not just the two weeks. Even us [team leaders] should [be trained] for at least three months to get a certificate. (TL 3)

> So, it means they just train for ten days and go straight to the community and start working so it means it is not the quality work. (M 8)

> We [team leaders] are having five-day training, it's not enough. I think maybe we need more even though we went to school. But for this project is not enough. Because we are having lots of writing work, our care workers need to fill up lots of forms, that's our challenges. If they can make it maybe three weeks, including the care workers. (TL 4)

4.1.1.3 Coaching: supervision and on-going training

The implementation driver's framework describes coaching as an active process that leads to effective implementation (SISEP & NIRN 2013). It combines supervision, monitoring and support for the WBOT team and all those involved in the implementation process. This could be through demonstrating, practice and feedback. The outcome of active coaching is fidelity, and ensures the teams confidence and competence to carry out their role.

Coaching of CHWs

CHWs were supervised, and supported by their team leaders, consistent with WBOT guidelines. Overall, all the team leaders said they have a good supervisory relationship with CHWs. CHWs felt able to approach team leaders when in need of guidance or when facing difficult situations in the community. In some clinics, CHWs felt their team leader was the person they could turn to for support in the clinic.

> We do tell the team leader these challenges that we are facing. The only relationship we have here is with the team leader. Yes. (FGD 2)

The major challenge preventing team leaders from coaching, on-going supportive supervision and on-going training of CHWS was their limited time, resources and capacity. CHWs were aware that clinic managers expected team leaders to fill in for staff shortages at the clinic.

> [Supervision by team leaders was received] once after maybe three months. Right now I think the issue is that they're short staffed. So, she [team leader] has to juggle being a team leader and helping at the clinic…We're on our own like Superman all the time…Our spreadsheet under 'supervision', it's all zeros. That means we haven't been supervised for a very long time. (FGD 2)

> We haven't had any supervision at all, okay. If our [team leader] is here, she'd go out with us and then try [visit] as many people as we can, but other than that, there is no supervision. It's just us and those people we go to. (FGD 1)

Limited or no access to a vehicle prevented team leaders from conducting supervisory visits with CHWs and their patients. Team leaders were concerned about CHWs feeling isolated when faced with difficult situations in the community. As a team they made use of all opportunities to enhance communication. Some teams gathered in the morning after signing the register, while

others set aside a more convenient time. Where a phone in clinic was available, team leaders communicated with CHWs by calling their cell phones.

> Like, I would say I'm supposed to go with them outside, so it's not possible for me because you see, I'm also a Sister in the clinic so I have a specific job to do in the clinic. So I'm not always like able to go outside. Last Month I went once for a [supervisory visit]. I think the important thing is in-service training, maybe once a week. We're supposed to meet at least on Fridays, once a week [inaudible] their problems, you know. So sometimes it's not possible. (TL 4)

Assessment of CHWs by team leaders

At the time of data collection, the EHD were in the process of assessing CHWs to determine their competency, using a tool designed by the DoH. CHWs who passed would qualify for phase two training. Team leaders were responsible for conducting the assessment, which included a theory and practical component. WBOT managers explained that the assessment process was chaotic. Firstly, Team leaders had insufficient time to conduct assessments. Secondly, the competency test itself was poorly organised and difficult to understand. Thirdly, CHWs who had never been introduced to the practical training manual were expected to answer the related questions. Given the challenges with the tool, team leaders did not accurately assess CHWs, passing most of them despite their actual competence level.

> Government initiated a competency assessment for phase 1 after [the teams were] trained. It was a chaos. Some of them were shocked, because they were expecting to have tool books for the exam, but they don't have. (M 7)

> So team leaders are enrolled, they don't even understand the tools, they were just ticking, ticking, ticking and then say CHWs are competent while they are not competent. Because we cannot say they are incompetent because everyone is going to fail. But those who were trained in 2011 by FPD, they do have tool books and they are doing very well. They have passed their assessments, but the other group, no. (M 8)

4.1.2 Organisational drivers

The organisational drivers refer to management processes that create an enabling context in which the WBOT intervention can be implemented. The results demonstrate how the administrative and systems components have been organised to facilitate the new ways of working in the clinic, community, and district. Three construct fall within in the IDF's organisational drivers: facilitative administration, systems intervention and decision support data systems (SISEP & NIRN 2013). These constructs were applied to the WBOT programme (see figure 8).

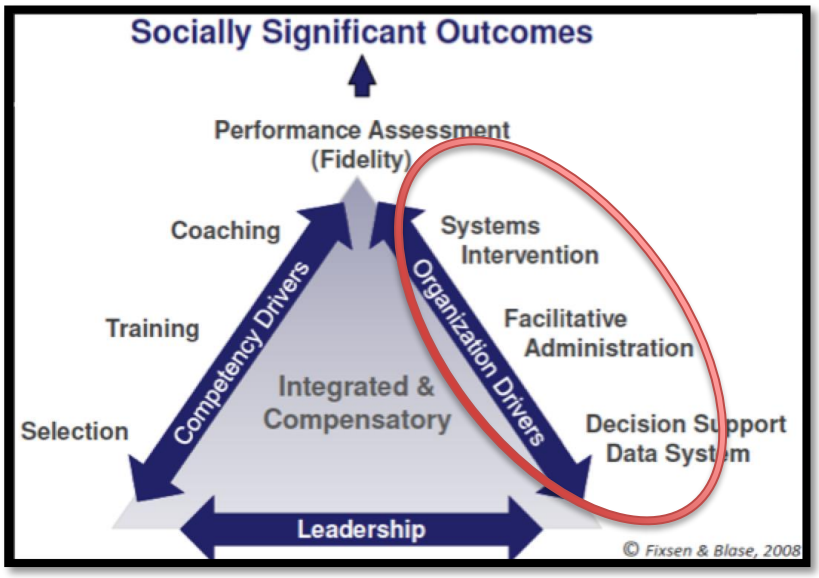

Figure 8: Implementation Drivers Framework: Organisational Drivers
Source: (NIRN & Duda 2013)

In relation to the WBOT programme, the facilitative administration drivers refers to the perception of the team concerning the management of key aspects of the implementation process by EHD, including establishing WBOT teams and communication with key stakeholders. Systems intervention refers to the systems and structures put in place to support the implementing organisation, such as a working space and basic resources (SISEP & NIRN 2013). The decision support data systems refers to the systems and structures put in place to support the implementing organisation (SISEP & NIRN 2013). The IDF suggests that data system must provide timely, valid and reliable information (SISEP & NIRN 2013). The data must be produced in actionable units to inform implementation decisions and improve processes (NIRN & Duda 2013).

4.1.2.1 Facilitative administration driver

Managing Implementation

Most participants in the study felt that there was insufficient district wide and clinic based preparation prior to the implementation of WBOTs. The process of implementation occurred almost immediately after the instruction from the National Department was received:

> It [the CHW programme] was [a] rush[ed] thing—the Minister says you need to start on this [implementation] so basically they went into the community [without training]. (TL 3)

> The implementation, this was a big rush. Some of the preparatory work was not appropriately done. So that's my view in terms of the implementation. But there are many positive things that I can't say that it must not be implemented. What we need is to remedy some of the challenges in the process of implementation. (M 4)

Managing WBOT establishment

Participants explained that the initial process of establishing teams was consistent with the implementation guidelines.

> So when we have to implement the teams we have to make sure that we have CHWs that are in that area. We have to make sure that we have got a team leader that is working in that particular clinic which is in that ward. (M 7)

However, without sufficient human resource planning, and the unrealistic expectation of the guidelines, the EHD soon ran out of professional nurses and was forced to adapt, by appointing a lower trained cadre nurse instead.

> They have started it very well because they were looking for a PHC trained [professional] nurse to be a team leader, so but, it now becomes a challenge because we don't have PHC nurses. (M 8)

The lack of professional nurses delayed the process of establishing teams. Managers explained that CHWs were trained and appointed, but some teams in the district were forced to function without a team leader.

> We made a submission to the department of health. So the whole process of [implementation] is going very slow because we can't get team leaders. So we cannot get teams started because without a team leader [we cannot function as a team]. (M 7)

In order to respond to the density of the ward, there were more CHWs per team, with a variation of between 7 to 12 CHWs per team, and an average of 10. Large teams are sometimes difficult to manage:

> It's a bit of a problem. The ones who are my age take advantage that I'm their age, so sometimes their respect is not there. And for me it's because there are a lot of them, 14 is too much. (TL 2)

4.1.2.2 Communication with key stakeholders

Communication between Implementers and Health Facilities

Once teams were established, team leaders and managers engaged the health clinic managers:

> We have to make sure the clinic manager in the clinic knows about it and she accepts that we can implement a team there, and then once that has happened, we start a team. (M 7).

However, CHW's felt there was very limited communication with the staff in some of the clinics where WBOT teams were based. They felt the inadequate dissemination of the policy to the provincial and district levels did not cultivate or ensure buy-in. Many nurses were not aware of the introduction of the WBOT strategy. None of them spoke about having been involved or consulted during the development of the guidelines. It appears as though they first heard of the

plans when they were directed to implement. Many were not aware of the importance of the new role CHWs should be playing in the delivery of PHC services. They were not aware of new training and skills of CHWs or how they were expected to work with them. Of those who were aware, it appeared that there were insufficient attempts to involve them or get their buy-in and support towards a more organised transition process. CHWs reported that clinic staff assumed that WBOTs might increase their workload by referring more patients to the clinic. Many clinic staff associated CHWs with the NGO sector. They were unhappy that CHWs started using staff facilities, such as kitchens and bathrooms. This led to resistance and hostility towards the CHWs. Many also would not accept or use the paperwork designed for CHWs, such as the referral forms.

> The staff at the clinic are having attitude even when our CHWs use their toilet. You will see their faces, they are so surprised "why are these people now using our toilet", because they expect them to use patients' toilet. [CHWs] sometimes come in to the kitchen and ask for water, they will be surprised [and will complain] 'there is a tap outside but they are coming here'. [CHWs] go to the community, telling the patients they are from a certain clinic, but when the [patients] come to the clinic they see [CHWs] in the patients toilet. No! They must see [CHWs] coming out from the staff not from patients. (M 8)

In other facilities, where there was good communication between health facility staff and the WBOT team leader, support for the programme was strong:

> I [Clinic manager] relate very well with [the team leader] and I also relate very well with the CHWs. I sometime go there in the morning just to find out if they are okay and really to tell them that we, we appreciate them. We have got that good interpersonal relationship. We work harmoniously with her. (M 3)

> We [CHWs] have a good relationship with the TB sister for DOT support because [the relationship] started long time ago while we were still at the NGO. So it grew from there and she understands us. (FGD 2)

Communication between Implementers and Communities

Once teams were established in Ekurhuleni, team leaders engaged with leaders in the ward, starting with the ward councillor. They then requested an invitation to a ward meeting in order to explain the WBOT strategy and to attain buy-in from the ward community.

> The implementation, maybe the preparation [in Ekurhuleni], was not so well done, I am not very sure but this is some of the challenges in the process of implementation that I found and because in terms of the community involvement, the initial step, there were community meeting organised where the CHWs [were] supposed to be introduced to the community but the meetings were poorly attended. (M 4)

There was minimal interaction and communication with the community leaders and key leaders in civil society. Despite some attempts by managers, team leaders and family physicians, the

ability to engage effectively was dependent on the reception from the ward councillor and political leadership in the community. Without essential information, community members were not aware of the new way in which CHWs work. Many did not know that CHWs intended to register every household, not only those requiring specific services. As a result, CHWs experienced hostility in the community and misunderstandings about the nature and purpose of the programme.

> There was less interaction, so the community were not well prepared to receive CHWs within the community. Also, civil society structure and the political leadership of the community were not part … because to smooth the implementation we need this structure. We tried to organise meeting with ward-based councillor. It was very challenging, we could not get her through the phone. (M 4)

The poor attendance affected the awareness, understanding and acceptance of the programme by community members.

> Without awareness it becomes very difficult to accept [CHWs] that you don't know in your house. With the level of crime here, people are quite sceptical. That's what I think, especially in terms of interaction with the organisers within the community, [for example] NGOs and political leadership, because if they will get involved, more community member will get involved and they can smooth the implementation of WBOTs. (M 4)

4.1.2.3 Systems intervention driver

In relation to the WBOT programme the results reveal perceptions of participants on the resources and systems put in place to support and enhance implementation and new ways of working.

According to the WBOT guidelines, DHS managers were expected to increase efficiencies by making use of available human, financial, and commodity resources, shifting and reprioritising needs to accommodate the WBOT programme. However, the experience of WBOT teams demonstrated that there was a lack of preparation and organisation from the PHA and LGA to provide WBOTs with resources they needed to implement the programme. This included their planning and operational requirements. WBOTs felt frustrated and demotivated by the lack of resources, which hampered their productivity, as mentioned in Table 3 below.

Table 3: Resources required for initial implementation

Resources	Quotations
Clinical Equipment	In the community if there is a person who is sick then you have to have an adult kimbi [nappy] and a linen saver. We need to have basics like gloves to work (TL 6)
Stationery	It was a bit of a problem to get the stationery. We don't have like [lever]

(paper, pens), equipment Data Storage Needs	arch files, photocopies of data collection forms. We use our own pens. (TL 2) Like myself now … I don't even have a laptop, but I have to write my report electronically (M 8)
Identifiable Uniforms & Name Tags	We must buy ourselves our uniform…And our shoe, [I am] getting tired because we are not getting paid. So I must use my shoe, my cosmetics every day. I must be clean, I must buy my uniform. [This costs] R2 200.63 and still buy food [from] my account (FGD 3) Even the CHWs don't have uniforms or bags. The things that they are having, they were given by an NGO. We don't have anything from the Department [of Health]. There is nothing that shows this is for [the WBOT] programme. Even the office, I am sharing with someone. I don't know for how long, I don't know. (M 8)
Cell phones	They use their personal phones. Sometimes [they send a] please call me [message service], and you [team leader] have to phone them. If you as a team leader don't have airtime, you have to use the phone at the facility (M 7)

CHWs also faced challenges storing the forms because they were not allocated any working or storage space in the health facility. WBOTs were forced to store paperwork in the clinic passageways, in boxes, and in outbuildings.

> No space. No Cupboards. No place to meet. We have to ask around and ja. If here it's occupied, that side is occupied, we'll meet under the tree.
> R: So then that … how do you think that affects your work?
> I: It affects their work. It does, because now they're not keen to work. (TL 2)

> We don't have our own place, like when we're doing the paperwork. We don't know where we can sit. So we don't have a room here in [the] clinic to store stuff and do our paperwork. If you sit outside you do whatever you need to do and then come back and then sign out and then leave (FGD 1).

Transport emerged as a significant implementation barrier to the WBOT program in EHD, where some wards in the district are extensive with a large walking distance to cover due to substantial distances between the clinic and informal settlements or assigned houses. Without transport, team leaders were not able to conduct supervisory visits in the community.

> My challenge [as a team leader] is transport. I don't have the transport or to go to [the informal settlement]. I use my own transport and go to [the informal settlement]. Because when you are doing [your job], you end up liking [the job and so feel] forc[ed] to go there. (TL 6)

While it is not written in the guidelines for WBOT teams to have access to a car, CHWs felt that

they should have a car in order for them to conduct home visits, and so that they can carry the necessary equipment with them.

> We find it not being fair because when the nurses are doing their tracing and households, they go with the car and we have to go with our own foot. If we can have a car and have our materials, our booklets that we need, like our own things like our own BP machines, AG machine, our own thermometers, ja, our own equipment. When we meet the emergency in the fields, how are we going to treat the patients because we don't have material? (FDG 5)

One clinic manager, who felt that CHWs should have a car, was concerned that even if they were given a vehicle to reach the community, there are many sections in the informal settlements that were not accessible because of the lack of paved roads.

4.1.2.4 Decision support data system

The section reflects participant's perceptions on the process of identifying, collecting, and analysing data collected by WBOTs in EHD.

In EHD, None of the teams had a data capturer assigned to them. One team leader explained that she had no time to verify the data provided by CHWs at the end of the month, and instead, she submitted the raw data to the clinic manager.

> At month end, you are supposed to give the summary of their visits. What I do, they write whatever, I do not verify, take the data, raw as it is, sent it as they have given it to me. There is no verification of any kind because there is no time to do that. (TL 3)

WBOTs were concerned about the confidentiality of the information and feared losing paperwork. A coordinator who visited a facility described her experience. At the same facility, the FGD for this research was conducted outside under tree because of the lack of space within the two-roomed facility:

> And it is also–so disorganised! The last time I was there they showed me where they were putting their forms. [It was] in this one small bucket. I wanted to check to see what they are writing on their forms so that I can correct [it]. So everyone was scratching in that bucket looking for their forms. It is not locked, anyone, a community worker can go there and get the thing and just go and look for information for other people. I said to [the team leader] she can order files for them but we are not sure where are we going to put those files …where are we going to put these files otherwise they [CHWs] are going to take them home. (M 7)

4.1.3 Leadership drivers

The IDF defines the leadership drivers as the leadership processes used to transform the system and create change (SISEP & NIRN 2013). This includes the different people who carry out different kinds of leadership behaviours and decisions, needed to establish effective programmes and to sustain them over time. Thus, leadership does not refer to the individual,

but rather a complex approach towards system change. Leadership approaches need to evolve depending on the need at a given time (Fixsen et al. 2015). This section presents the WBOT teams' and managers' perspectives on leadership of the WBOT programme. The results refer to different levels of leadership including the DoH, PHA and LGA (see figure 9).

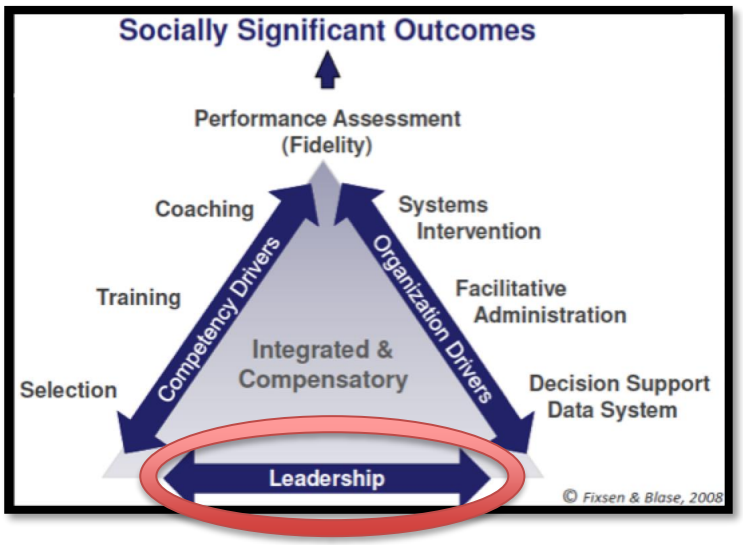

Figure 9: Implementation Drivers Framework: Leadership Drivers
Source: (NIRN & Duda 2013)

4.1.3.1 Undertaking the programme with two jurisdictions

The split between PHA and LGA introduced two layers of bureaucracy overseeing the programme. WBOTs were expected to navigate between the two authorities. Poor coordination and planning between the two authorities affected WBOT teams' capacity to provide effective services.

> [Team leaders and CHWs] also need support from [clinic] managers because we mixed in one clinic – provincial and local government. The clinic manager is local government. Now [WBOT] is a provincial programme and the team leader is [employed by] by the province. (M 7)

Team leaders received varying levels of support, depending on the clinic manager's buy-in and decision to support the WBOT strategy. Team leaders were expected to report WBOT activities to the sub-district WBOT coordinator who is employed by the PHA, and the LGA clinic manager. However, LGA clinic managers who assigned team leaders to daily clinic duties expected them to fulfil these local tasks and provide statistical reports on them.

> [A team leader] is working at the Municipality Clinic [LGA], so they [do not] allow her to function independently. But the other team leader is working at a [different LGA], and there the manager is interested in WBOT and then even that sister is interested, so she is doing very well about this. (M 8)

Clinic managers expressed that there is an expectation that human and material resources should come from the provincial budget, because there was a district wide impression that the

programme was a provincially run programme. Municipal clinics, run by the LGA have a separate budget through the local government structure, and have allocated resources towards their own set of priorities compared to the PHA:

> So now I have to go around ask the provincial nurses in the clinic to order [daily supplies] for the CHWs. But I know that the problem they are going to say storage! They can order, but where are they going to keep those things? (M 7)

Without the authority to utilise LGA clinic phones, communication between team leaders and CHWs was restricted. This affected CHWs who needed guidance during a home visit.

> [Clinic] phones they need you to have a code to use so and most of our team leaders are provincial staff so they don't have that code. (M 7)

4.1.3.2 Communication between policy makers and implementers

Managers in the district explained that they had little knowledge of many aspects of preparation for the implementation process. They had many unanswered questions, leaving them feeling uncertain and disempowered. Some of these questions relate to the budget for the WBOT programme, payment of CHWs, lines of authority and the role of the NGOs in the district.

> Why I'm saying we don't have budget… I thought maybe they are still planning for [WBOTs] I don't know. (M 8)

> We were told [that] there is a budget for PHC outreach, which they have put under the PHC budget. …I think they said 3 million…. for the whole [region F] Ekurhuleni. (M 7)

The role of the NGO's became clearer halfway through the data collection process when the provincial government took over the payment and management of CHWs in the WBOT programme. This meant that NGOs no longer had a role in management, supervision, payment, or the provision of supplies for CHWs. WBOTs, the managers, and NGO manager were informed of this decision, rather than being consulted in the process. NGO managers were unhappy with this decision, especially those who continue to provide home based care support in the ward. This created hostility between the NGO and the CHW who still live and work in the same community, affecting their relationships. One NGO manager felt as though the PHC programme had stolen CHWs from her.

> So [NGO manager] feel like I am stealing them, I don't know. [NGO manager] was threatening them in front of us, saying she took them [CHWs] from the streets and she can just take them back where she got them and give other people jobs because they don't want to work, they don't want to listen to her. They feel as if I have been there for longer than her. (TL 2)

4.1.3.3 Human resources planning

I will be presenting the finding about CHWs as a human resource. CHWs are responsible for carrying out the tasks that have been shifted down to them. The findings reveal how the CHW experience their job in terms of the conditions of service and their career path.

CHW conditions of service

CHWs were employed on a contractual basis, earning a monthly stipend of R 2200.50. This amount does not relate to previous employment or earnings. At the time of data collection, there was a change in payment structure of CHWs from the Department of Social Development via NGOs, to the DoH paying CHWs directly. CHWs were unhappy with the amount of their stipend, and unpredictable payment dates. They felt angry about the 'dry season', a period of three months when, for no apparent reason, they were not paid. CHWs did not want to be paid a stipend, instead they wanted to be incorporated into the health system and receive a fixed monthly salary.

> Before they were taken over by the department, CHWs were paid by the NGOs. Sometimes they would stay about 3/4 months without getting paid. Now they are getting paid every month, even though they don't know the pay date. It can be the 30th it can be the 1st. But now they don't have pay slips so they cannot produce anything anywhere that states that they are getting the salary on a monthly basis. Some of them they want to open [bank] accounts, but they can't. So that is the other challenge that they are having. (M 7)

> And the money. They are always complaining about their money. Their money is too little, you know, that is what they are saying. (TL 2)

CHWs also felt that there was no concern about them having benefits afforded to permanent employees such as sick leave and UIF. Sometimes, CHWs were unable to come to work as a result of financial strain.

> There's nothing. If you are dead, you're just dead. That's your own business…No leave. No sick note, no sick leave. No nothing. If I'm sick they replace other people in my space...Like if I could get a TB, it's my business. [But] it is my business [as the CHW]…If I get hurt in a patient's house, that's my business…If a dog bites you; even if you get raped. If you're going to someone's house it's a bit risky because you don't know what you're going to find there, many people [in the area] here are smoking nyaope (a drug), so it's a risk. (FDG 3)

Despite their own financial challenges, CHWs often use their own money to help community members facing precarious situations. In some cases, CHWs bought food for community members who are hungry, or need to take medication.

> Imagine you go down there, you find the situation is not okay, so you go out of your way [to assist]. This person that you are here with is hungry. You need to get half a bread [loaf] at least for him or her to eat. You're using it from your own salary that was stopped three months ago. And then this time on the fourth month, they give you one month's salary, and say "We

will see you."… They say there's dry season. So the dry season is like there's no money, but keep on working. (M 2)

The little money they get, if they get it, it needs to be used for a lot of things. Sometimes they go to a patient, where she's got no food and they had to make a plan for that. You see? They use their own money for transportation. They use their own money to help somebody who is there, you see all that. (M 2)

CHW career path

CHWs complained about the uncertainty of their career path, although they viewed the WBOT programme as an opportunity to improve their skills, gain qualifications, and develop careers. However, the training they received was uncertified, which meant they had no proof or qualification.

We get trained but we don't have certificates, even now we don't have the certificates for this [work]. (FDG 3).

At least if they get certificates – it shows that they are doing something. (TL 2)

Some were interested in enrolling in a nursing course.

Because we need respect, I think it should have a qualification because I don't think there's anything that's being called community health work. If we have a qualification then we will be respected according to what we are. Because I think they feel like they've taken people from the NGOs, just ordinary people from the NGOs and bringing them to the clinic; yet [CHWs] studied so much. We want to go further, only…I want to see myself at hospital or surgery doing something. We want a nurse's qualification. (FGD 5)

This job is getting dull, like we want to be trained to be professionals. We want to be in a professional and permanent job. And [after] many years doing this job, why they don't keep us permanent? (FGD 3)

4.1.4 Fidelity to the national guidelines

Fidelity reflects on how well the competency, organisation and leadership drivers are integrated to support the intervention, and to reach fidelity. While it might be unrealistic to expect fidelity to be reached at the initial implementation stage, the findings identify areas of concern; demonstrate where the implementers have compensated for challenges; and provide insight into where integration has occurred. Applied to the WBOT programme, the results reflect the daily experiences of the team as a result of the programme organisation, leadership and their perceived competency. This includes their workload, role and experiences in the community. It also includes the experiences of WBOT in the context in which the work, and the reaction and response they receive from the community (see figure 10). The results reflect a complexity of challenges that does not bode well for achieving fidelity at the full implementation stage.

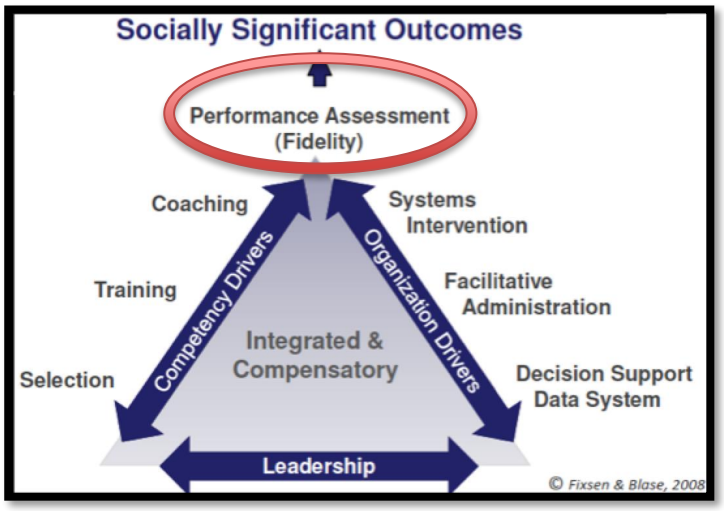

Figure 10: Implementation Drivers Framework: Fidelity

Source: (NIRN & Duda 2013)

4.1.4.1 CHW perceived role and workload experiences

CHWs' perception of their new role was consistent with the role description in the PHC guidelines. They explained that each CHW is responsible for registering 250 households in the ward. CHWs visit every household in the entire ward, not only 'those who are sick' or in need of home based care, HIV counselling or TB DOT support services. CHWs spoke of the additional paper work that they are responsible for. This is a significant change since they have moved away from NGOs

> So the differences…going door-to-door, it's not some people are getting services and some don't…. There's lots of paperwork and filing... referrals and follow-ups. (FGD 1)

CHWs map the community, schools, churches, shebeens and shops. They also build relationships with government departments, such as the Department of Social Services, SASSA, Home Affairs, the police and other relevant community services. They refer community members who need services within and outside of the health system.

> We have children who are under 18, who are child-headed household, we refer to social services. We refer to [the] clinic, police station, Home Affairs. (FGD 2)

Their tasks include health education and promotion on topics such as treatment adherence and hygiene practices; early detection of illness and defaulter tracing. As written in the guidelines, their tasks have grown with the inclusion of maternal and child health care, an area of work not previously covered by CHWs affiliated to NGOs.

> Our role is to find [out] about the needs of the community, so that we can assist…We also do postnatal care for woman who have given birth. We teach her how to take care of the baby, how to bath the baby and to check for common illness which the baby might have, and the danger signs… [And] how to breastfeed. (FDG 5)

There has been a significant increase in the number of tasks performed by CHWs in WBOT compared to their previous role. The new workload, paperwork and referral follow-up has left them feeling overwhelmed. One CHW, in trying to conduct the required 250 general household assessment forms, explained:

> Imagine you go to the tenth house and maybe I have three people or seven people, all of them are sick… and I must cover [paperwork for] ten households. And if all of them are taking medication, you must check that they're taking the medication correctly and understand why they are taking medication. (FGD 3)

Despite their exclusion from the PHC re-engineering guidelines, past practices were however maintained:

> We also do the home-based care to the bedridden, and home bounds who can't do anything for themselves, like your frail care. (FGD 1)

Importantly, there is a move away from domestic care to health interventions as a form of empowerment:

> So we [CHWs] have taught [communities] how to take care of [themselves]: identifying patients, tracing TB defaulters, encouraging family planning and abstinence. [Our role] has changed from doing things for the community to the community doing it for themselves. [We are] empowering them by giving them information on what to do, and not to just sit and expect people to come do things for them. When I was [working for] at NGO, I didn't know I must encourage them to make their food garden, that they must plant spinach, carrots, [etc.] so that they can able to get some food on a daily basis. They must not depend on government grant always. (FGD 5)

4.1.4.2 Team leader perceived role and workload experiences

Team Leaders explained that their role had doubled since their appointment. Instead of replacing clinical duties with team leadership duties, the new role was added to their daily responsibilities and obligations. This is not showing fidelity, as the team leaders are not working as the guidelines suggest that they should. One team leader explains:

> I am the registered nurse that is allocated [programmes] like any other Sister working in the clinic. I was given the ANC [antenatal care] programme. I attend meetings for maternal issues. On top of that I have a clinic to run like any other person. I have been allocated EPI [Expanded Programme on Immunisation] and if there is a shortage [of staff] on PHC or HAART [highly active antiretroviral therapy] then I have to come and help on this side. But every day I see patients, there is no day that I don't see patients. (TL 3)

With limited spare time in between clinical work, all team leaders in the study tried to carry out the required tasks for the WBOT programme. All reported that they felt overworked and unable to accomplish all the expected tasks. The constant juggling of tasks required of team leaders,

and its impact on accompanying CHWs into the communities they serve, is also reflected in the quote below:

> I'm assisting CHWs with household registration, monthly statistics. Most of the community are very poor, they don't have IDs. My role, I'm counting the referrals and then I find out if that patient went to the specific services such as social service that the [CHW] sent her to. I'm also assisting the elderly with medication, because some of them they are staying alone. I would say I'm supposed to go [conduct supervisory visits] with [CHWs] outside, so it's not possible for me because you see I'm a Sister also in the clinic. (TL 4)

Another team leader was able to build many relationships with key stakeholders in the community:

> My role again is also to involve the community, which has to buy into the whole programme. I have to liaise with a number of stakeholders, for instance the ward councillor. I involved the Ekurhuleni Environmental to help me with the map and to allocate CHWs to households. I have managed to have a specific person to [refer and consult with] at Home Affairs. At the clinic, there is an in-house social worker, part of Ekurhuleni social development that comes once a week. I also went to the old age home, but unfortunately it is full… there is company that teaches computers but they also help with food parcels. (TL 3)

In their daily operations, team leaders had little agency. Instead; they were expected to follow instructions from and report to clinic manager, who were concerned with the PHA vs LG mandate:

> One professional nurse [team leader], she is so busy. It is a municipality clinic, so it means they cannot allow her to have time with the CHWs at the same time. (M 8)

Overall, team leaders felt overburdened and stressed, having to meet the demands of both health authorities. They complained of not being able to attend team leader meetings in the district, missing training, and feeling isolated in the clinic. Managers, who tried to support team leaders and negotiate on their behalf, were also limited.

> Some team leaders are not allowed [to leave], maybe they are not given time to function properly because of shortages [at the clinic], so because [the clinic] is municipality, [and] I am provincial, I cannot force [the municipality]. (M 8)

4.1.5 Implementation: integrated and compensatory

In this section, participants share their perceptions of their day-to-day experiences implementing the WBOT programme in the EHD, which contributes to answering the first objective of the study. They describe the challenges and enablers to delivering health care services to the community. The result, as reflected in the perceptions and experiences, provide insight on how the CHWs and team leaders CHWs and team leaders, who are largely woman, work to create an enabling or disabling environment in which the program is implemented. It also provides insight into the integration of how three drivers of implementation, were integrated in order to

realise the goals, PHC values and philosophy underpinning the WBOT programme. Within the NIRN Formula for success, the results that follow provide insight into the effectiveness or challenges with the implementation methods within the context that might impact on health access, acceptance and trust and may lead to socially significant, or outcomes in health. These components are demonstrated in figure 11 below.

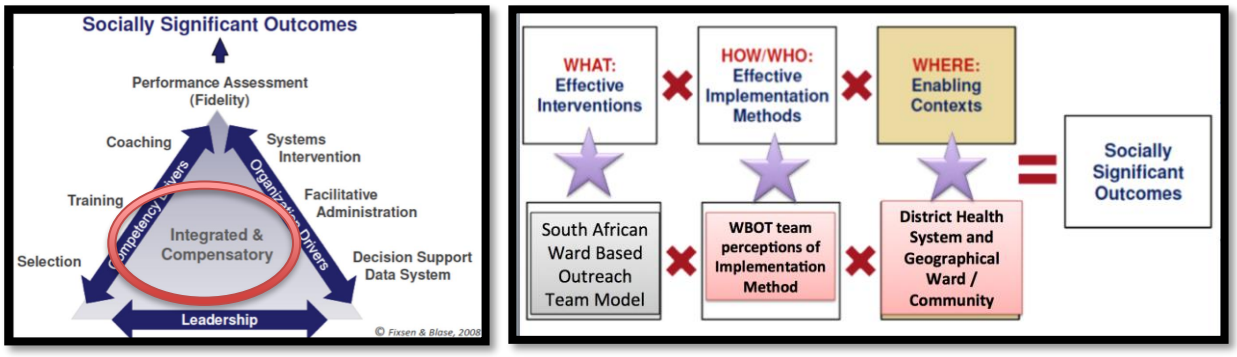

Figure 11: Implementation Drivers Framework and Formulae for success
Source: (NIRN & Duda 2013)

4.1.5.1 Implementation experiences: working in the community

After signing the daily register, CHWs spend a lot of their time walking from the clinic to houses in their allocated ward, influencing the number of home visits they are able to conduct in a day.

> Places we go, they are very far to walk. [From where] I live, it takes me fifteen minutes to get [to the clinic], thirty minutes to get to the houses. And I have to come back again… [It is] hot, [I have] no lunch, we are hungry. (FGD 2)

Conducting follow up visits also takes time and distance across the community:

> You can do ten houses in one street, for the first day. Second day, another ten houses. By the tenth or eleventh day, you must follow-up now. One person here on this street, the other one on the other street, on the last house, the other one is in the middle on the fourth street, (M 2).

A clinic manager explained that the haphazard growth, poor layout and overcrowding of the informal settlements prevents vehicles from driving through, and could also put the community at risk of a fire hazard. CHWs expressed fear when working alone, so many of them walk in pairs. They spoke of safety concerns in the community such as the risk of being mugged, raped, or assaulted or being attacked by dogs. This also affected the number of home visits the team could conduct in one day, and the progress of registering the ward or following up on home visits.

> So our challenge is that we are afraid we are going to be raped. Even though we are two care workers in one house, sometimes three when I am with them. The [informal settlement] is a small place full of shacks everywhere. In a one small [shack], you are going to find six or seven [men] and all those guys are smoking that nyaope. And the next shack too they are smoking nyaope and it's only a one yard. So it's very dangerous. (TL 6)

On rainy days, CHWs were not able to leave the clinic to register houses. One CHWs explained that when caught in the rain, she could not take refuge anywhere in the community.

> It's not easy for us to walk around when it's raining because our bags are not water proof and will get wet. It's a challenge, you see?. (FGD 1)

> When it's raining its very challenging because some other people they don't want us to go into their homes …get in with the water in our bodies so that we can make the house dirty (FGD 2)

CHWs were not able to register people who were not at home at the time of their visit, or those who are away during their working hours, affecting their reach into the community.

> Some patients give us a problem because they are working [and not at home]. And you can't come on Saturday or Sunday. Our contract says you can't work on Saturdays. If something happens on Saturday or Sunday, it's worse. (FGD 3)

WBOT teams spent a large amount of time following up on referrals to services in the clinic and outside, such as social services. Ideally, they should receive a 'back referral form', a referral back from the stakeholder following up the initial referral. This was not always the case and depended on the support or buy-in from the health workers and social carers whom they send referrals form, and their willingness to return the form to CHWs

> If many social services [did not return the back-referral form], you must take action, investigations [by asking the community member]…and if [community member] don't attend [the appointment], you must go there and just ask [social service worker], 'why did you not attend to this case?'. (FGD 3)

4.1.5.2 Implementation: barriers to health access

Unmet service expectations

Many CHWs were trained by NGOs to provide clinical diagnostic services, such as blood pressure and blood sugar testing. Some of them delivered medication to patients who had difficulty visiting the clinic. With the exclusion of these tasks from the new guidelines, community members no longer received those services in the community.

> They [WBOT managers] promised us BP machines and HCT machines because we find that someone will tell you, "I didn't go to the clinic yesterday, I was sick, I need to check my sugar levels and my blood pressure". But you don't have the machine. Some of them [CHWs] may be trained but assist can't because they don't have the [machines] (TL 2).

Community members who were not to visit the clinic felt their time was being wasted by CHWs who encouraged them to visit the clinic instead of providing clinic services to them. CHWs felt unhappy that skills they acquired while working at NGOs were not included in their training, affecting previously built relationships, and introducing a gap in the service.

> Community expect more because when we do the follow ups, we check their card. They want us to take the blood pressure at least, not just ask them questions all the time. And if we refer the patient to the clinic, they must queue as everyone and they don't want to do that. CHWs, they are only trained in phase 1, so they can't take the blood pressures and do those things. (TL 3)

Some of the poorer patients expected food parcels, cleaning material, regular supplies of items such as nappies, and basic assistance to alleviate their condition. Again, CHWs felt unable to meet the needs of the community and providing services they previously provided to the community.

> They complain we don't give them anything. They expect medication, food, money from us. Sometimes we just tell them we're doing this registration, maybe, we're not sure right, maybe next year we can bring you medication. But our team leader told us that still next year we're going to go and register and ask for the same information and it's not going to be easy for them to give us the details again because it seems like we're doing nothing for them. (FGD 3)

WBOT programme creates and overcomes stigma

The stigma, discrimination and victimisation attached to having a disease in the community affected how people accessed health services, and their willingness to interact with community-based health services.

> Let's say if you find a chronic patient there, they will tell you "don't come back, it's a secret that my mother is going to the clinic and collecting medication". People say that they won't come to the clinic nearest to them because they don't want to be seen. They will be stigmatised. (TL 1)

Community members who saw CHW work as associated with HIV did not want to be stigmatised, and thus rejected them. In some cases, there was a view that the programme was part of surveillance efforts, motivated by political party electioneering. Some community members do not want CHWs to be seen visiting their homes. One of the reasons for this is because of the previous NGO system where health workers only visited the homes of sick members of the community. CHWs explained that there was a feeling of hostility and suspicion towards them.

> Our challenge is that when they see a care worker or nurse [visiting a] house, they say, "oh that means that there is someone who is sick". It [implies someone is] HIV positive and getting a stigma. But we [CHWs] are trying to get into every house so that they will see that we are not working with people who are HIV only. We are working with all the community. (TL 6)

CHWs explained that the WBOT programme is helping to overcome the challenge of stigma in the community. By visiting every household, instead of those in need of specific services offered by NGOs (such as HIV/TB, home-based care), people are encouraged to open the door without fear that their neighbours might think that there is a person who is sick living in the house.

> There [is a lot of] discrimination in this area. When we started to work here, they [community members] keep on saying we are HIV positive. Then when you talk to them you tell them in a

> big meeting, in a ward meeting, they start to understand. But some of them they are not understanding clearly. (M 6)

Furthermore, CHWs found the use of an official registration form encouraged some people to trust them by providing personal and health information that they were not able to attain under the NGO system.

> We ask them questions from the registration form, [for example] if they are taking their medication. Some of them disclose that they are taking medication but before with home based, people didn't want to disclose and stuff. (FGD 5)

Access barriers identified by WBOT programme

One of the goals of the WBOT programme is to bridge access to services for vulnerable groups. CHWs explained that despite their attempts to address these barriers, there are other factors outside their control that impede access to services. Local and foreign migrants who do not have the correct documents such as ID books, or the road to health booklet, continue to experienced challenges accessing care from the clinic. When the WBOT team refer them to clinic or other services, they are often not helped. In one example, a team leader explained that a foreign migrant was seen by a nurse using a temporary file each time she visited the clinic, affecting the continuity and quality of her care.

> Most of them don't have identity documents. The clinic reception won't open a file for them. They will use a temporary... that can get lost at any time meaning they don't have information [saved] because this paper gets lost, unlike files. Most of them, you find that they gave birth in Zimbabwe and then they came here. Kids under five years don't have clinic cards and when you refer them to Home Affairs they can't help them because they don't have [a] passport and they came in[to] the country illegally. (TL 1)

CHWs struggled to improve access to services to South Africans who don't have identification documents.

> Yes, you will be amazed, you will find South Africans don't have ID books, and the person is probably over 21 years or 40 years of age. They tell you they left home a long time ago, the mother is dead already, so they can't go to Home Affairs. We do refer them but then some of them don't get help. I can say 50% of them don't get help. You refer them to social grants but they can't [access grants] because they don't have some form of identification. (TL 1)

Participants mentioned that children without adequate documentation were sometimes turned away when they came to the clinic for immunisation. While the WBOT programme is bringing awareness to this problem, teams are often unable to address the cause of the barrier to access. CHWs and team leaders perceived that mothers, whose documents were either misplaced or not available in the province or country where the child was born, were not accepted into the clinic.

> "The problem is …most of the under five kids, [are]…not immunised. They are sick… I will refer them to the clinic but because they don't have proper documents, they need the Road to Health [booklet]". (TL 1)

4.1.5.3 Implementation: Acceptance and building trust

The study reveals the cultural and linguistic diversity of the community living in the EHD. The process of building trust and acceptance of the WBOT programme takes time, and many CHWs in the programme experienced rejection and hostility in some cases, worsening the experience of gaining acceptance within the community. One of the reasons for this appears to be the lack of preparation for the WBOT programme. Some of the factors affecting acceptance and trust building are discussed below.

WBOT programme not inclusive of traditional beliefs

CHWs were not accepted into homes where people held different cultural and traditional belief systems. The WBOT programme does not meet the needs of people who have different health belief models. Some people preferred to seek care from their church, or from the traditional healer. CHWs explained that despite the severity of the person's illness, they refused to be registered into the WBOT programme, or access services from CHWs or the clinic. This could be because they don't trust CHWs or feel that they and their illness aren't being addressed in a way that is compatible with their beliefs.

> They refuse everything. I [team leader] used to carry sputum bottles and cooler boxes. So there was this other person, [he had] those signs and symptoms, and you can see [he] is sick. [He said] 'I can't test. My culture refuses anything from the clinic so I can't, it's tradition, they will heal me, I will be fine. I [team leader] said no, I am trying to help you, what if you have TB? When I go for the follow up visits, [I saw this] person deteriorating, he will tell you 'I am going back home to my parents in Nelspruit,KwaZulu Natal. I can't see anyone, no one will help me, so I have to go back there. I will find a better Inyangato [to] help me, a traditional healer, because here people don't know how to manage my condition'. (TL 1).

Some people refused advice from CHWs, for example, with a traditional medication known to cause harm, or even after the CHW has explained the dangers:

> There's a traditional medicine called ishlambeso, [that women] drink close to their due date so that they can give birth fast. It affects them, especially if the mother is HIV positive. The process of labour doesn't go well because of the medicine, [and the baby and mother may lose their lives]. Some women also believe that after giving birth you can feed the baby because s/he cries cries a lot. (FGD 5)

Poor community awareness and acceptance of WBOTs

Community members who did not know about the programme, and could not identify the CHWs as someone they knew, refused to open their door for CHWs. Some CHWs tried to overcome

this challenge by wearing the uniform provided by the NGO from which they were recruited, giving them a more professional appearance.

> One month we had a problem around this area [place name], they [CHWs] didn't have identification and uniform so the person threatened to go to the police and get them arrested because of that. The community is still not clear about what's happening in the clinic about the PHC outreach team. They don't understand, even though we go with the people who are in charge, the councillors. Because normally we get permission from the councillor. (TL 1)

Others were suspicious of CHWs asking for their personal information, and were concerned about how the information might be used. Some feared being surveyed by the government; others were afraid about the confidentiality of the information.

> My other challenge is that the community doesn't want to give their information. Even a simple thing, a phone number, they are going to ask you why. (TL 1)

Perception of clinic affected acceptance of programme

Community members did not trust that WBOTs would help them, or improve their past poor experiences in the clinic. Many were not sure how the CHWs were going to address the issues that lead to their dissatisfaction with the range of services offered to them. CHWs listed these to include long waiting times, stigmatisation by staff or community members, poor staff attitude and treatment, poor service delivery, lack of resources and drug stock outs.

> So now the community doesn't like to come to the clinic and the clinic is bad to the community. So you have to face both sides of the attitude. (FDG 3)

The fact that CHWs themselves were not welcomed into the clinic, or given space to function from it, also affected the community's willingness to trust them.

> The community can't trust us now [because we have no space to work in]. But [if we are allocated space] they will say "oh these people they are having this office, which means all our information is [in] a right place and then it's secured and it's confidential". (TL 6)

CHWs sense of belonging

CHWs felt a sense of isolation, belonging neither to the clinic nor to the community, and sometimes not even to the NGO from which they were recruited. There was a strong hierarchy within the clinic and CHWs perceived themselves to be "down there" at the bottom.

> I think in terms of respect, I wouldn't say we are not being respected, I don't know how to put it but I'll try to put it in a way that everybody's going to understand. There are doctors, there are sisters and there are nurses, so there are categories, so we are down there, we are community health care workers. So we are treated as community health care workers. (FGD 5)

There was a sense for some of being part of the community, despite adverse reaction from some community members. One CHW in the focus group explained that if there is a patient that needs to be followed up on then "we do the work for the clinic but we are not part of the clinic".

> It feels like they [CHWs] don't belong here at the clinic. No one knows about us, or I don't know, and it causes problems. Because they say they belong to the clinic, but you don't have like not taken serious or whatever (TL 2).

When falling ill, or if a CHW needed chronic medication, nurses expected them to follow the care pathway patient's use, without being offered the priority treatment given to nurses. This had an impact on the communities' view and respect for CHWs, and their recognition both in the facility and the community. CHWs found it difficult to develop a working relationship with health care providers because they were not viewed as colleagues. Rather, they felt that they did not have relationships with anyone other than their team leader.

> I'm being frank here. I don't think we have a relationship here with the clinic. The thing is we just come in the morning, sign the register, if they greet us, they greet us, if they don't, they don't. And then we do our thing and leave. So basically that's bad. We're not even appreciated. I would say, we are not recognised, we are not appreciated. That's all I can say. (FGD 1)

4.2 Characteristics of the environment in which the WBOT worked

This section represents the perceptions of the WBOT team working in the health system and in a community context.

Managers spoke of other health systems challenges that affected their ability to function on a daily basis and impacted on their ability to implement the new WBOT programme in the clinic. This included general shortage of staff, the lack of space in the clinic, the presence of bureaucracy, power and hierarchy in the clinic, and the constant introduction of new reforms and treatment guidelines they were expected to implement. Other factors included budget and resource constraints, drug stocks outs, security guards not being paid, and the lack of computers and equipment in the facility. They felt that integration of the new reforms was a major and difficult task, and needed support. At the same time they had a backlog of services – treatment drug catch-ups for the clinic already.

4.0.2 Community context: roles and relationships

CHWs described the communities in which they work as having high unemployment and poverty. Violence and abuse within families is common. Literacy levels were low, especially in the informal settlements. There were many elderly people living alone, as well as child-headed households and high teenage pregnancy rates. CHWs, who themselves are part of the community in which they work, are sometimes overwhelmed by the challenges they see around them.

> The biggest I think is unemployment and poverty. Everyone is complaining of not having a job. It's the big problem, and teenager pregnancy. (TL 2)

> When I go to the shacks, some of the people haven't got food, it is poverty, they haven't got food, they haven't got clothes. The children are not going to school. (M 6)

Community members struggled to understand health information even after the nurse has explained, or when having access to written information. One participant explanation the challenge of low health literacy:

> When the child has diarrhoea, they run to the clinic, but do not make the [oral rehydration solution provided by the clinic]. I [team leader] ask the mother 'have you read the book [Road to Health booklet]?', because I give them the book, they don't read it. You know, some of the mothers will tell me 'because he cries a lot I am giving one teaspoon of cream of maize or Nestum Nostrum [formula food for babies] or whatever', and the child is hardly six weeks [old]. (TL 3)

The communities faced various health challenges including HIV, TB, and child malnourishment.

> Currently the pressing issue is HIV and TB. First of all we had a look at HIV, the issue about denying, disclosure, compliance (M 4)

The nyaope drug was highly prevalent amongst young people in the district. Nyaope is a cocktail of substances that may include heroin, dagga, anti-retro-viral drugs, rat poison and acid.

> Nyaope, they smoke ARVs [antiretroviral therapy], and Ratex. They get that medication from the patients and make it in a drug. It cause[s] violence. (FGD 4)

> It's very mixed and it's not like controlled [in] that community, because everyone is having his or her own belief, like everything is happening there. And it's very, very rough. People are stealing there, it's a rough community. (TL 6)

Participants explained that many people were forced to borrow money from loan sharks and faced many stresses as a result of debt. There are many shebeens – illegal bars selling alcohol in the area, and most people spent their days without work. Food choices were poor, people consume high carb diets including 'khota' – bread with deep fried potato and processed meat.

> Mielie Maize is our staple food in this community. There are also ones, they will go to tuck shops, they have got this money they buy bunny chows, it will be the fast food (M 3).

CHWs reported across cultural, religious, ethnic diversity in the families they enrolled. Residents included South Africans who had lived in the community for many years, and economic migrants from within South Africa and abroad. This results in diverse health needs.

> It's mixed in this community. So Sotho, maybe Shangaan. South African and foreigners too. (FGD 5)

> So I can say 80%, no 90% of the people staying there in the hostel, they are Zulu men from KwaZulu-Natal and they are very stubborn. The rest are from around South Africa and illegal immigrants. Most of the time I can say 50% of them in the informal settlement they are from Zimbabwe, Mozambique and other places in Africa but most of them, it's Zimbabweans. (TL 2)

4.0.3 Community context: environment

Informal settlements in EHD are tightly packed, with shacks in close proximity to each other. In two places, the communal toilets were broken, dirty, overflowing, and there were no indoor toilets in people's homes. Most of the communal taps were running constantly, wasting gallons of water. Stagnant dirty water ran on the side and next to unmaintained drainage systems. There were many environmental health and safety concerns in these communities. Electric wires appeared to be manually connected from electric poles to shacks. They run close to the stagnant water and along tin shacks, posing a health and safety hazard. Stray dogs and cats live amongst the community. Where there are brick houses with yards, there are many shacks in the yard at the back of the house,

> A lot, especially when we go to the places that are congested, like the shacks, you see. The place has got a lot of shacks, it has got no structure. Everybody can put everything anywhere where they like. It becomes a challenge (TL 1).

The contextual factors described help us in understanding the experiences of initial implementation because there were a number of things that led to feelings of inadequacy amongst CHWS. These included the context of poverty, food insecurity, multiple languages and diversity.

Chapter Five: Discussion

The discussion that follows is organised under six key headings. Three headings fall under the National Implementation Research Network (NIRN) Implementation Stages as a framework (see figure 12). Approaching the process of implementation temporally (phases of exploration, installation, initial implementation and full implementation) allows for the contextual examination of the Ekurhuleni WBOT experience up to two years after the initiation of implementation (see red line in figure 12). Six themes will be discussed. The first three include the stages of implementation relevant to the study: exploration, installation (including organisational readiness) and initial implementation. CHW "precarity" which refers to a condition of existence without predictability or job security affecting material or psychological welfare of the individual is forth theme (Schneider et al. 2008). Task shifting, and, an assessment of the NIRN guidelines based on their applicability/utility in the Ekurhuleni district are two additional themes discussed.

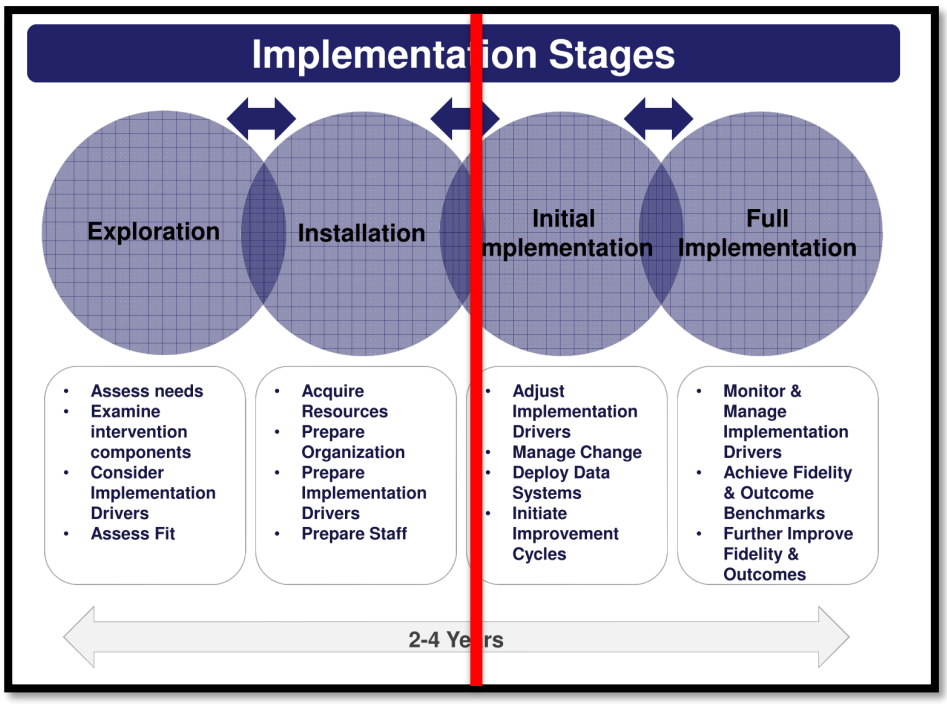

Figure 12: Implementation Stages

Source: (NIRN & Duda 2013)

The study aimed to record and analyse the views of community health workers, their team leaders and their managers on the initial implementation of ward based outreach teams in the Ekurhuleni Health District. The core findings are the lack of a comprehensive and well thought out policy and implementation guideline for the WBOT program. Two crosscutting challenges to WBOT implementation are stewardship and resources constraints. A lack of communication with key actions significantly affects the understanding, buy-in, and collective commitment to

implementing the guidelines as desired. Sub-standard practices such as inadequate training and insufficient coaching of WBOTs, and poor data management systems result from poor district wide preparation for WBOTs and poor organisational readiness for change.

None of the issues are new, but rather speaks to recurring and enduring structural challenges in the political, economic and health systems sphere. Many of the implementation failures discussed below fit in the context of a path dependent culture of faulty implementation (Paina & Peters 2012).

5.1 Exploration stage

5.1.1 WBOT guidelines

An important finding from this research is the lack of a clear and comprehensive description of the intervention model and practices for WBOTs. Another missing piece is the core intervention components that are essential reflections of the desired philosophy, values and principles. The current WBOT guidelines are vague and contain inadequate information about important aspects such as budgetary allocations. The guidelines have many such gaps in the description of the implementation process itself - at all stages of implementation - thus failing to meet the criteria for success of top-down policies (Buse, Mays & Gillian Walt 2012; Sabatier & Mazmanian 1979).

As a result, EHD faced many challenges implementing a policy with such system-wide effects. Provinces across the country have done what is possible within the context of budgetary, staffing and other resource constraints, including through “finding” money for an unfunded mandate – reported in formative a district-wide process evaluation of WBOTs in the King Sabata Dalindyebo (KSD) Sub-District in the Eastern Cape Province (Rabkin et al. 2015), the North West (Padayachee et al. 2014) and the Mopani District in the Limpopo Province (Ngobeni 2014). The failure to consult with implementers left managers feeling like they just had to make a plan, and do what is possible. This has resulted in uneven, piece-meal and haphazard implementation of the policy with no overall coherence to the implementation of the policy.

This finding also emerged in the KSD Sub-District where implementers needed to design and develop their own implementation strategy with limited resources: “If I could have it over, I would say there should have been a national indaba or a workshop but implementation happened only along the development of policy documents. Everybody was not clear what was supposed to be done and once we heard this on the ground, we heard that people just assembled teams but weren’t sure what they were supposed to do” (Rabkin et al. 2015: 17).

Despite the vagueness of the guidelines, WBOT managers in EHD made a concerted effort to establish WBOT teams across the three sub-districts, especially in the most vulnerable areas. By the end of 2015, 42 teams were established in the poorest wards of EHD (Makhudu & Lerutla 2015). The Mopani district had 104 active WBOTs in 88 wards by the end of July 2014 (Ngobeni 2014). Nationally, 2135 WBOT teams had been registered in the District Health Information System by December 2014 (Taole 2015). The significant progress in establishing teams indicates that while frustrating on the one hand, provinces might have used the opportunity presented by the vague guidelines to find creative means of designing their own implementation strategies in order to achieve the goal of establishing active WBOT teams, by any possible means.

In Gauteng, this creativity is evident in other health districts: the use of mobile technology in Tshwane (Hugo 2013; Bam et al. 2013); the development of health posts in Sedibeng district based on the Cuban model (GDoH 2013; Nxumalo & Choonara 2014); and, the creation of a community practice model inspired by Kark's community oriented primary care approach, in Region D, City of Johannesburg (Moosa et al. 2014).

The current WBOT guidelines do not take into account that districts across South Africa may have different capacities to implement the WBOT strategy with fidelity, in a context of inequities created by historical legacies and continued underdevelopment. Where inequities exist across rural and urban contexts, wealth quintiles, maternal education, race, and geographical landscapes, there are different requirements of the implementation framework and strategy to ensure successful implementation (SANDoH 2011).

5.2 Installation and organisational readiness phase

5.2.1 Context for policy change

Policy analysis literature explains that the policy environment shapes implementation (Lehmann 2016). In the case of top-down policies, like South Africa's WBOT roll-out from the DoH, Sabatier (1979) and colleagues argue that effective implementation is dependent on, *inter alia* a stable context where there are no changes in either the socio-economic conditions that could undermine the implementation process or the political support underlying the policy (Buse, Mays & Gillian Walt 2012; Sabatier & Mazmanian 1979).

This study reveals that the health system context in EHD is fragile, hostile and not able to cope with the demands for change. In EHD, which focuses predominantly on curative care instead of PHC, the pressure faced by PHC facility staff to re-engineer towards a PHC approach increased and was regarded as overwhelming (Ndhambi 2012). Managers reported that WBOT was not the only reform they were requested to implement; they continuously needed to adapt to changes in policy guidelines, clinical guidelines and confront many challenges such as staff

shortages on a daily basis. It was not clear to them how WBOTs would be integrated into the other reforms that were being implemented, such as DCSTs, school health teams, the ideal clinic strategy and integrated chronic disease management programmes. There appears to be little thought on the timing and phasing of the different reforms within the health system, and how concurrent implementation might overwhelm clinic staff.

Some circularity exists in that the DHS is envisioned to be the institutional delivery vehicle for the WBOT programme and the WBOT strategy is meant to contribute to strengthening district health, yet in order for the WBOT to help strengthen the DHS, it is itself dependent on a strong integrated DHS in order to function effectively. This creates confusion of which one come first, when the outcome of the WBOT and the prerequisite for WBOT to be successful, appear to be the same thing.

The study reveals that CHWs felt overwhelmed by the situation in the community. The context in the EHD is precarious, where overcrowding, cultural and linguistically diversity, and poverty overwhelm the CHWs, who feel ill equipped to cope with the precarity in the communities. There were many factors and characteristics within the community that influence the implementation such as the stigma, trust, fear of surveillance, rejection of services attached to the clinic. Furthermore, the safety risks and lack of skills to deal with complexity disease, affected CHWs.

There were also many features of their daily job that were unaccounted for by the WBOT guidelines, including: bad weather, walking long distances, time taken to conduct all different tasks such as registering families, home based care and conducting follow up visits. This was worst in cases where the “back–referrals forms” given to health care personnel, social workers or community members were not returned to CHWs. These complex cases are time consuming and require CHWs to chasing up professionals, the patient or family members.

5.2.2 Management structure: local government vs provincial

The lack of clarity relating to the leadership and management of the WBOT programme in EHD was one of the most significant constraints to emerge from this research. This stems from the incomplete provincialisation of the district, compounded by the non-specific national WBOT guidelines (Sema 2010). Within an already fragmented leadership context, where there is disunity between the provincial and local government authorities, this uncertainty became a significant barrier to the implementation and functioning of WBOTs in Ekurhuleni. It resulted in a lack of ownership of the WBOT programme by the LGA and incoherent leadership directives.

Respondents repeatedly emphasised that the WBOT programme in EHD was viewed as a provincial mandate. As explained in Chapter 3, the PHA manages only eight out of 74 clinics in

the district while the remaining 66 clinics (95%) are managed by the LGA (Ekurhuleni Health District et al. 2013). WBOTs and sub-district managers found themselves caught between the bureaucratic structures and historical tensions of the two health authorities, with limited agency and decision space.

These tensions shifted the priority away from the PHC re-engineering strategy, side-lining WBOTs in an already contentious environment. It placed WBOTs at the mercy of individual clinic managers to decide whether to support or subvert the programme, accommodate WBOTs in their clinic, or focus solely on their already full mandate. Without political will, financial investment and clear leadership, the programme may have little chance to survive, and may be put in competition with other programmes.

The WHO has developed an international harmonisation framework for CHW programmes built on 'three ones': "one national strategy, one national authority, one monitoring and accountability structure" (Mogedal et al. 2013: 8). The WHO explains that harmonisation through the creation of a single, coherent institutional, management and regulatory framework will optimise synergies and increase the efficiency and effectiveness of CHW programmes. Yet South Africa's incomplete provincialisation of PHC did not happen with fears from trade unions that the process would shift the power even further away from communities and labour, further entrenching the hierarchical and paternalistic nature of the health department (Sema 2010; Mail & Guardian 2010). Through these discretionary power, "street level bureaucracy" may alter the polity intention (Buse, Mays & Gillian Walt 2012).

5.2.3 Communication of policy

This study reveals the perception that there was very little communication with different constituencies (the public, between province and municipalities, local stakeholders) in the different policy processes, including the development of the 2011 PHC reengineering guidelines.

Managers and clinic staff blamed the top-down approach of instructing districts to comply with the guidelines, rather than engaging with districts in developing them. This might explain some of the unintended consequences, such as the resistance of clinic staff towards CHW and their lack of acknowledgement or acceptance of referrals from CHWs. Furthermore, the collective vision was not well adopted; and, instead, a lack of buy-in and non-acceptance from clinic staff at the clinic for whom, ironically, the programme was designed to support, were commonplace. Many were not aware of the importance of the new role CHWs should be playing in the delivery of PHC services.

In a context where a well-established hierarchy exists, it becomes even more important to communicate and clarify new roles, relationships and expectations. Instead, misconceptions occurred, preventing CHWs in the study from being accepted and slowly embedded into the architecture of the health system.

Similarly, an important finding that emerged from the research was the limited communication with people living in these underserved communities where WBOT teams were newly established. In the study, efforts by WBOT managers and teams leaders were concentrated on outreach to the ward councillor, and in most cases, this happened once in each ward, reaching only a few community members. Similarly, awareness of the WBOT programme amongst community leaders and community members was limited in the KSD Sub-District despite ongoing efforts at community sensitisation by WBOT implementers and DoH, (Rabkin et al. 2015).

Effective communication is expensive, time-consuming and requires a significant amount of preparation and resources. Weiner (2009) highlights that neglecting this process compromises organisational readiness for change. It meant that all stakeholders who have a role in operationalising the programme have different levels of knowledge, commitment and efficacy towards effective implementation. He states that communication leads to willingness to cooperate, to provide the necessary resources and to implement according to the plan. This in turn affected the efficacy for change (Weiner 2009).

Similarly, the suspicious attitudes towards CHWs from the community indicate that there was limited meaningful participation in the development of the PHC reengineering guidelines from the community as well. Instead, it appears that the patriarchal approach of deciding *for* the community what they need and how it will happen instead of engaging with them in a meaningful participatory way to determine the nature of the guidelines, package of care and implementation structure. Community participation, a significant element of PHC, is historically weak in policy development and implementation in post-apartheid South Africa (Nxumalo et al. 2013; Barron et al. 2010). If the programme's purpose is to take health services outside the clinic and into the community, participation and engagement in policy design and localised roll-out appear to be vital to its success.

5.2.3.1 Readiness of WBOT staff and managers

The uncertainty surrounding ownership of the WBOT programme created significant barriers to the day-to-day functions and coordination of the WBOT programme. WBOT staff felt that this is where bureaucratic wrangling occurred because of the expectation that the PHA should manage

implementation, and provide human resources, finances and resources in clinics managed and run by the LGA.

WBOT staff explained that clinic managers were unable to re-orientate the health system towards a more PHC approach through their actions and prioritisation, because they had not, and in some ways were unable to adopt the vision and purpose of the WBOT programme as a countrywide strategy to improve access to health care services for South Africans.

The combination of these factors and the lack of planning and readiness for implementation left CHWs feeling ill-prepared to carry out the expected tasks. Weiner (2009) explains that this negative perception of the structural and contextual situation affects efficacy and feelings about their ability to carry out their duties. Ultimately, this impacts on the effectiveness of implementation (Weiner 2009).

Furthermore, without a collective commitment to the change process, the 'team based' approach, which is a key element of the PHC reengineering strategy, cannot be achieved. This approach requires all members of the team to alter unacceptable ways of working towards the desired change, which is reorienting services to be person-centred and community-oriented. The DoH's inability to deconstruct hierarchies, shift and alter relationships and create new ways of relating with CHWs that enable robust community orientation to health care is a grave consequence.

5.2.4 Resource shortages

Padayachee (2014) and colleagues reported that "the biggest challenge for implementation of WBOTs, both for sustaining what has been achieved to date and for further scale-up, is ensuring the adequate resourcing" of WBOTs (Padayachee et al. 2014: 77). As a key driver of implementation, lack of resources diminishes WBOTs' ability to create an environment that supports the new ways of work (SISEP & NIRN 2013). The lack of resources in the EHD negatively impacts on CHW readiness perceptions, affecting their commitment towards the change. CHWs in the KSD Sub-District also reported that the lack of equipment, supplies and medications put WBOTs in a difficult position, unable to address health needs, to provide effective referrals and quality services (Rabkin et al. 2015). Resource constraints are not a new issue, but rather an enduring issue that has been around since 1994 (Dookie & Singh 2012).

5.2.4.1 Material resource shortages

CHWs in this study did not have the required infrastructure to store their data collection forms in secure spaces that maintain the confidentiality of their patients. This affected the quality of data collection. Basic daily supplies and equipment for home visits were poorly planned for, or in

many cases not provided: there was inadequate cell-phone airtime for communication between team leader and CHWs, transport for CHWs, uniforms, name tags and stationery. Space or park homes for CHWs were absent or in short supply, which have already been noted as common problems in North West, Gauteng and other wards in EHD (Padayachee et al. 2014; Paulus 2013; Ekurhuleni Health District et al. 2013). One of the consequences includes the fact that motor vehicles were not provided to team leaders, thereby limiting the ability to conduct supervisory visits.

5.2.4.2 Inadequate financial resources

The WBOT programme is an unfunded mandate, and there is no new or ring-fenced funding source allocated to implementation of the guidelines. Dr Prinitha Pillay from the Rural Health Advocacy Project (RHAP) highlighted these concerns: "Without funding, provinces get to do what they want with this strategy. Unless you allocate money, provinces will say, 'we don't have money and national hasn't given us extra money to implement this strategy. We can only do what we can afford'" (Malan 2014b). The absence of a dedicated budget for the WBOT programme has already been identified as a key weakness of WBOT implementation in other parts of the country and in EHD (Padayachee et al. 2014; le Roux & Couper 2015; Paulus 2013; Ekurhuleni Health District et al. 2013).

The DoH might have assumed the change from NGO management of CHWs to the WBOT programme was an incremental change that would transition with minimal input (financial, leadership, organisational change) and with limited communication, as opposed to the another strand of PHC re-engineering, the DCSTs, for which detailed guidelines, regular communication and clear budgets allocations were provided (Oboirien et al. 2013).

These financial constraints affected EHD's ability to mobilise key resources in order to ensure that the district was well prepared prior to implementation. Instead, the district started implementing, and then needed to accommodate, adapt and find alternative resources, possibly shifting financial resources away from existing, and already much-needed, programmes.

Policy analysis lessons from the past show that well-meaning top-down policies that are not budgeted for or supplemented with additional resources could potentially make things worse (Buse, Mays & Gillian Walt 2012). As mentioned in Chapter 2, the 1996 national policy of free care for children younger than 6 years and pregnant women, and free primary health care for all was resisted because it exacerbated existing problems in nurses' work environments without increasing staff levels, drugs and supplies (Buse, Mays & Gillian Walt 2012).

5.2.4.3 Human resources for policy implementation

The most significant challenge was the lack of capacity to plan for the human resources as required by the WBOT guidelines, resulting in the appointment of enrolled nurses to lead the outreach teams instead of professional nurses. While the 2011 guidelines indicate that 5 842 teams are required, the shortage of professional nurses to fill the team leadership role is a countrywide problem (Malan 2014b; SANDoH 2011). Moreover, staff-hiring moratoriums across the country exacerbate the problem (Lopez Gonzalez 2016). However, the findings show that enrolled nurses who were appointed as team leaders carried heavy workloads, failing to fulfil their role as team leader because of their clinical workload and need to fill in for staff shortages.

South Africa currently faces a severe shortage of nurses, the backbone of the public health system. The country has three categories of nurses: professional (registered) nurses with four years of training; enrolled nurses with two years of training; and nursing assistants or auxiliaries with one year of training (Rispel & Bruce 2014). By 2010, the DoH estimated that the country was short of over 44 700 nurses, despite training around 3 500 new nurses a year (Cullinan 2015).

In 2014, 76.8% of all health professionals in the public sector were nurses of all categories. Yet nursing education institutions do not meet the health and service demands for nurses and midwives. In 2010, the DoH estimated a professional nurse shortage of 44 780 in the public health sector, despite the new health sector reform policies increase in the demand for professional nurses with specialised skills (Cullinan 2015).

As mentioned in Chapter 3, there are 101 wards in EHD, yet each ward may need more than one WBOT. The absence of national norms and standards makes it difficult to determine the real shortage and the number of nurses of all categories required. Although nurses are more equitably distributed between urban and rural areas compared to other health professional categories (e.g. doctors), there is still a gross maldistribution between urban and rural areas (Rispel & Bruce 2014).

5.3 Initial implementation

5.3.1 The danger of verticalisation

The study revealed that the management and organisation of the implementation process was rushed, poorly managed, ill prepared for, and, experienced many barriers. The established hierarchies, tensions and fragmentation in EHD, the deadlines imposed by the DoH, and also the pressure to deliver impacted negatively on the district's ability to develop a more organised and methodological process. In this way, an enabling context for implementation of the WBOT programme was not created.

Instead of the WBOT programme being integrated into the broader re-engineering and DHS strengthening processes, the WBOT programme was implemented as an add-on vertical programme, alongside existing programmes, within the existing context.

5.3.2 Utilisation of data collected by WBOT teams

The results of the study reveal that data collection, storage, utilization from data collection tools including household registration forms and referral and back-referral forms is patchy, uneven and poorly used by over-burdened team leaders and clinic managers. None of the WBOT teams in EHD had a dedicated data capturer assigned to them. Jinabhai (2015) and colleagues who conducted a rapid appraisal of the WBOT teams across seven districts reported the same challenges (Jinabhai et al. 2015). They also highlighted a more serious challenge with the current District Health Information System (DHIS), which has "limited provision in its data fields for capturing, analysing and transforming household registration and other data" (Jinabhai et al. 2015: 12). This challenge has important implications for team leaders and clinic managers who are expected to use the information to transform health service delivery platforms according to community based needs. Furthermore, the lack of timely and reliable data compromises the facility's ability to monitor the change process, identify weaknesses, adjust implementation drivers, or create a quality improvement cycle. Another noteworthy barrier to monitoring and evaluation was the limited time team leaders in the study had to supervise CHWs to ensure the accuracy and veracity of their record keeping. As a result, CHWs often helped team leaders with the monthly statistics.

A different, but noteworthy challenge was experienced in the KSD Sub-District. After registering 21,700 people for more than a year, Rabkin (2015) and colleagues found that the data collected by WBOTs were largely unusable (Rabkin et al. 2015). They attributed this to incomplete and poor quality that was difficult to analyse (Rabkin et al. 2015). This speaks to the capacity and training of CHWs to accurately record, capture and analyse information they collect from households. It makes it almost impossible to fulfil the intention of community diagnosis (Salama 2008).

As early as 1981 the WHO emphasized the critical importance of quality health information systems and related skills training in the implementation of an integrated comprehensive PHC approach (Williamson et al. 2001). South Africa established the DHIS in 1999, and has put in place strategies to promote its use. The South African government acknowledges that strategies for promoting sustainability of DHIS implementation lie in the social processes of human resource development, changing organisational infrastructure and the use of ongoing evaluation rather than those of technical infrastructure (Williamson et al. 2001). The importance of quality data management systems and the strategies to promote its use must be emphasised in policy implementation.

5.4 CHW precarity

The concept of CHW precarity helps us to understand initial implementation for the following reasons.

5.4.1 CHW employment status

A central finding of the research relates to the precarity of CHWs regarding their employment status. This concern was consistent expressed amongst all CHWs interviewed in EHD, and was echoed by many of the team leaders and key informants. This finding correlates with other research on CHWs across the province and across the country (Friedemann et al. 2014; Mkize 2016; Rural Health Advocacy Project 2014; Malan 2014b; Malan 2014a; Maregele 2014a; Maregele 2014b)

At the start of data collection, CHWs in EHD were being paid by the NGOs from which they were recruited, funded through the Department of Social Development. Halfway through the data collection process, the payment structure changed and CHWs were being paid directly by government, through the provincial budget. CHWs complained of delays in payment, long periods of non-payment called “dry seasons” and uncertainty about the date of their payment. Another significant financial concern was the low level of remuneration and frequently interrupted stipends of CHWs. Likewise, this concern was expressed by CHWs in the North West province, where it was found to be a significant threat to sustaining the work of teams (Padayachee et al. 2014).

Gendered aspects of work and remuneration also come into play with the CHWs interviewed for this study. The vast majority of care workers, including lay health workers and home based carers who deliver care to vulnerable members of their communities in South Africa are women, and it is also women in South Africa who are mostly in need of care (Daniels et al. 2012). Without formal recognition, these CHWs, majority women, face ambiguous working conditions, and have no associated work benefits. Violent mugging, sexual assault and exposure to nyaope users are a common reality for CHWs in EHD, similar to other parts South Africa (Cullinan et al. 2015; Nkosi 2015).

As a vital link to social services, CHWs are often called upon to support vulnerable families; yet, as mentioned above, they themselves face the same risks – not having protective clothing or adequate community or contractual protection. One CHW, a woman from the Western Cape who loves her job (such that she takes food for her patient who need something substantial to eat prior to taking medication), had no choice but to stay at home without pay for two weeks after sustaining a serious back injury while bathing a patient. Yet an occupational health and safety trainer from the Industrial Health Resources Group explained that the absence of

standardised policies made it difficult for these women to report problems like injuries (Maregele 2014b).

Furthermore, the study reveal that there was little support from the formal workforce for CHWs as it was reported that clinic staff were upset when CHWs tried to use staff toilets and kitchen facilities. They sabotage the processes and held negative attitudes. The negative attitude left CHWs feeling disrespected, unvalued, and unwelcome in the clinic. These negative attitudes stem from the fact that nurses thought CHWs were increasing their workload. Hierarchical relationships between facility nurses and CHW was found to be a problem in the Eastern Cape (Jinabhai et al. 2015). Nurses were unhappy when CHWs show up their failings by reporting that members of the community were unhappy with the care received in the clinic. These power relationships impact on the role identity of CHWs who already face tensions as 'insider' and yet at times being treated as 'outsiders' (Gilson, Schneider, et al. 2014; Mlotshwa et al. 2015). CHWs who rise to the occasion to serve their community attain their value not always in relation to their envisioned usefulness and necessity but through their insertion into a 'broken' system.

CHWs are often from the communities they serve and yet when they become 'state actors' they suddenly become 'outsider' regarded with of suspicion or fear, and at the same time, appreciated for the resources or care they provide or resources they possess. These poor communities, cut off from the state in so many ways, engage with CHWs as representatives of a state, they feel, has failed them. CHW reflected on their own need for care, and debriefing, to support them to perform their role effectively.

Angered and panicked by the situation, CHWs across the country have been protesting due to payment delays and unclear conditions of service (Damba 2015; Maregele 2014a). In the Free State, CHWs and TAC activists were charged for illegally gathering, when they staged a protest in response to the on-going crisis in the provincial health system, including an arbitrary decision to terminate the contracts of community health care workers (Right2Know 2014; Section 27 2015). According to Malan (2014), it was the lack of a clear CHW policy which made it possible for CHWs in the Free State to be fired without recourse. This is because a policy would include regulations that the Free State health department would be obliged to follow in order to protect these workers (Malan 2014a).

In March 2016, CHWs in Gauteng took the PHA to the provincial Labour Court. CHWs were alarmed that the Gauteng PHA advertised their jobs without CHWs' knowledge, and that they had to reapply for their positions. The judgement found that the CHWs should, at that time, be regarded as employees of the Gauteng DoH, and that using terminology such as "stipend" does not alter the material status of the employment. The judgement also stated "the documentation provided by the department does indicate very strongly that the activities of the CHW are central

to the implementation of the Gauteng PHA's commitment to PHC and that the functions that they perform are integrated into its organisation" (The Judiciary: Republic Of South Africa 2016).

Subsequent to this judgement, the Gauteng PHA awarded an R87 million tender to a payment management company called SmartPurse in an effort to resolve the delay-ridden payments of approximately 9 000 CHWs in the province. This company would procure and install biometric devices at health facilities, develop CHW monitoring software, validate and verify workers and remove ghost workers, and pay stipends to workers through an outsourcing mechanism (Mkize 2016). However, many CHWs in the province have refused to sign the contracts, as they have not agreed on many of the terms and conditions of the outsourcing company, fearful of the additional vulnerability it could create in their lives. This has left many communities with interrupted services or without active CHWs (Kahn 2016).

While outsourcing improves efficiency for organisations and makes business sense, (du Preez 2016), it has been criticised for allowing the systematic exploitation of workers, while absolving institutions of the responsibility for exploitation (Barry 2015). In a country that has a long and proud history of championing labour rights and the humanity of workers, outsourcing may entrench and deepen inequities amongst vulnerable groups, going against the spirit of social justice, as outlined in the Alma Ata PHC Declaration. Examples of the dangers of outsourcing were highlighted by the University of the Witwatersrand's Workers Solidarity Committee, where outsourcing resulted in the entrenchment of workers, workers conditions suffered, they lost pensions and outsourcing made it more difficult for workers to find representation and organisation in trade unions (Barry 2015).

5.4.2 CHW competence

The results of the study show that the EHD faced complex challenges putting mechanisms and activities in place to achieve the required levels of competence of CHWs as intended by the national guidelines. Yet the attainment of successful PHC re-engineering depends heavily on the functioning of CHWs in households and communities. This requires knowledge and understanding of the scope of practice (especially health promotion and prevention), clinical and administrative skills, the ability to forge a good relationship with the community and indigenous knowledge of the area.

Overall, the CHW selection and recruitment process in EHD was consistent with the WBOT guidelines. The majority of CHWs live in the communities in which they work. All of them were trained by the NGOs prior to their recruitment into the WBOT programme; and, most had a Grade 12 qualification. However, there were some outliers in the study sample, where teams leaders and managers reported that some CHWs were illiterate. If true, this is a significant

implementation barrier, preventing those CHWs from being able to carry out their roles, and being unable to refer to the manual for information they might need in preparation for a home visit. Low levels of literacy, health literacy and computer literacy amongst CHWs were also reported in a rapid appraisal of the WBOT program across seven provinces (Jinabhai et al. 2015).

The problem of illiteracy, and the larger problem of poor health literary, together with the precarity of being a CHW is exacerbated by the fact that they are largely on their own, have no on-going training and limited coaching. To compensate, team leaders have paired them up, by sending two CHWs to conduct a home visit instead of one, slowing down the pace of ward registration and referral, as both tasks require the CHW to be able to read and write in English in order to complete the various assessment forms.

Considering this, ten days of theoretical training and, in only some cases the five days of practical training, did not enable CHWs to develop the 'fit for purpose' skills required to achieve competence. Evidence shows that the number of tasks a CHW can reasonably perform depends on the duration and quality of their training, and the extent and quality of their supervision and coaching *inter alia*, the burden of disease and, on the ratio of CHWs to households (PHM et al. 2016).

It may be useful to contrast the approach taken by other countries where CHWs have been integrated to demonstrate and reflect good health outcomes, and where they have had more robust training. Ethiopia's Health Extension Workers (HEWs) go through a year-long pre-service training programme, with a focus on PHC in rural Ethiopia (Redick et al. 2014). Pakistan's Lady Health Workers participate in a 15-month training programme where they spend three months of their time in the classroom and 12 months receiving experiential training in the field (Redick et al. 2014). Training was a central element of the CHW programme (otherwise known as the *behvarz program*) in Iran (Javanparast et al. 2012). The training programme aligned with universities, and includes theory and practical classes for a two-year duration. The programme has been called a compelling example of comprehensive PHC (Javanparast et al. 2011). Furthermore, there is global recognition of the importance of adopting the principles of adult learning when training CHWs, using multimedia materials and innovative teaching methods, such blended learning and on sight peer-to-peer training (Redick et al. 2014; Nxumalo 2015).

In 2011, the DoH acknowledged that previous CHW programmes were ad hoc informal solutions that faced multiple problems such as the limited training and insufficient support or supervision received by CHWs (SANDoH 2011). Yet on-going training for CHWs in the WBOT program was overlooked and hidden amongst the other implementation challenges, neglecting its critical importance to the entire re-engineering of PHC, and the goal of bridging access to

quality health care services in the community. The research highlights the importance of the practical training that should happen in the field on a regular basis. Participants felt that the practical aspect of the training compensated for the severely limited theoretical training by providing additional opportunities to practice the theory in the field, Furthermore, practicing the skills improved proficiency in CHWs ability to provide quality services such as the detection of illness. Moreover, it allows for provision of a responsive service based on local needs, equipping CHWs with skills and confidence to collect data of good quality.

Supervision is an essential ingredient for the success of the WBOT programme and gives CHWs a sense of legitimacy in the eyes of other health workers, communities served by CHWs and CHWs themselves (Hill et al. 2014). Evidence suggests that the quality of supervision has a greater impact than increasing the frequency of supervision alone (Hill et al. 2014). This is dependent on the nature of the relationship between team leaders and CHWs, where the stronger the relationship, the better the quality (Hill et al. 2014). In EHD, CHWs and teams leaders all reported having a good, collegial relationship; however, a significant barrier to both on-going training and supervision were the team leaders' time restrictions, competency to coach CHWs and the difficulty to access resources, such as vehicles to conduct supervisory visits in the community. The consequence, as revealed in the findings of the study, is that CHWs in all five FGDs complained about the minimal and insufficient advice, encouragement, or opportunities to practice new skills. This is captured in the quote, "We are on our own like Superman', expected to face difficult conditions in the community without back-up.

In 2015, Nxumalo (2015) asserted that CHWs are sometimes seen by the DoH as a ready-made solution to a complex set of problems without taking into account the low state of health of poor people in vulnerable communities (Nxumalo 2015). Moreover, lay health workers need extensive support in order for them to respond to this complex mix of challenges, without which negatively influences their competence to make good decisions and might ultimately hinder access to health and other services (Nxumalo 2015). This assertion resonates with Professor Eric Buch's 1984 paper "Do the primary health care nurses in Gazankulu provide second class cheap care to the poor?", as well in 1994, when the then minister of health Dr Nkosazana Dlamini Zuma believed that CHWs would provide second rate care for the poor (van Ginneken et al. 2010; Buch et al. 1984). van Ginnenkan (2010) explained that despite the minister's acknowledgement that decentralisation is a key element of the 1994 National Health Plan she had dropped support for CHW projects. These assertions speak to the competence of CHWs.

5.4.3 Career pathing

CHWs in the study valued their training, despite the short duration and questionable quality. They felt the new knowledge enhanced their skills to support their community, where they felt

they had an important role to play. However, they were frustrated by the delays in training (phases two and three) promised to them. CHWs had hoped to gain expertise, recognition through certification, and have that registered with the South African National Qualifications Framework. In this way, many aspired to develop their career path. Some of them saw it as a step towards a future and expressed a desire to study nursing. Instead, they felt demotivated by these delays, affecting their commitment and willingness to work.

5.5 Task shifting

5.5.1 Community health workers

Task shifting has been identified as a priority workforce implication for the re-engineering of PHC by the DoH's *Human Resources for Health Strategy for the Health Sector 2012/13-2016/17* (Republic of South Africa 2011).

Historically in South Africa, CHWs have been a key mechanism for scaling up HIV services (Schneider et al. 2008). This includes services such as linkages of HIV-positive individuals to care, and identification and provision basic HIV counselling for lifelong antiretroviral therapy (Schneider et al. 2008). CHWs in EHD report that they continue to provide these services, along with others, included in their scope of practice. Through the introduction of the WBOT programme, task shifting of maternal and child health services to CHWs has been introduced.

The study identifies challenges and a mismatch between the roles identified in the 2011 guidelines and the tasks performed by CHWs. The elimination of home-based care appears to be a design gap, because CHWs continue to provide these services in the absence of anyone else to perform them. CHWs' previously established relationships with the community were based on the provision of such essential step down care from hospitals or clinics: preventing pressure sores, rehabilitation, and community mental health care (Rural Health Advocacy Project 2014). The WBOT guidelines also neglected to take into account the physically demanding, emotionally involving and time-consuming nature of these care tasks.

Missed opportunities have also been identified in this study: eliminating clinical care tasks such as the delivery of medication is another design gap rather than an implementation gap. In addition, the household registration form had questions that may have set up community expectations to receive certain services; for example, "Do you want an HIV test?" (see appendix B). The option of CHWs carrying HIV home test kits is yet unexplored.

If CHWs do not act on the identified need by addressing the access barrier, booking an appointment for the an HIV test, or liaising with the team leader, further barriers to accessing health services may result, and deepen the lack of trust in public health services. The programme might be in danger of being seen as a surveillance programme that collects data

and information, instead of its intent to bridge access to quality services to the community. This compromises trust, acceptance and perceptions about access to services, causing long tem implications.

Doherty (2016) and colleagues highlighted another design gap with the guidelines that might put strain on the implementation. Considering South Africa's quadruple burden of disease and the role CHW play within and outside the health system, they calculated that the current ratio of CHWs to population is unlikely to achieve the desired health improvements. CHWs in this study already feel overworked with their current workload. The ratio of one CHW to 250 families compares unfavourably with Brazil (one CHW to 800 people) or Rwanda (one CHW to 255 people). Doherty (2016) and colleagues argue that a higher CHW-to-population ratio would increase the frequency of contact with community members and thus increase the potential impact on behaviour change and coverage of health interventions (Doherty et al. 2016). Therefore, the number of CHWs needs to be much higher than the 70 000 the DoH plans to deploy by 2030 (Kahn 2016).

5.5.2 Team leaders

With the introduction of the WBOT programme, CHWs are expected to deliver Maternal and Child Health care services to the community. In the absence of professional nurses, unintentional task shifting occurred to the enrolled nurses. Implementers did not take into account the lack the knowledge, skills and competence in PHC and Maternal and Child Health care, making them inappropriate for selection as supervisors. They are unable to support and mentor CHWs in the provision of these essential services. Team leaders were only provided with five days of training, which insufficient training to prepare them for this role. Enrolled nurses qualify after two years as opposed to four years received by professional nurses (Rispel & Bruce 2014).

The implementers of WBOT in EHD did not or could not take into account the capacity of the enrolled nurse to assume such a time-consuming responsibility on top of their clinical duties. Yet research shows that inadequate planning for the time and human resources required for supervision of CHWs has been a common contributor to failed CHW programmes in the past (Hill et al. 2014). Team leaders should be equipped with leadership skills in order to provide the quality coaching and they need sufficient time and resources to provide effective coaching (Redick et al. 2014).

5.6 National Implementation Research Network: Implementation Drivers' Framework

The NIRN Implementation Drivers' Framework proved useful to organise the complex implementation experiences with a well laid out structure that accounts for the complexity of

large complex adaptive health systems, such as the EHD. The NIRN Implementation Stages was helpful to examine implementation temporally, across the four phases, allowing for contextual examination of the Ekurhuleni WBOT experience up to two years after the initiation of implementation. The NIRN formula for success highlighted the prerequisite for successful implementation, which provided clear guidance for the importance of each element, especially the importance of an enabling context (SISEP & NIRN 2013). The definitions and terminology used in implementation science differ from the definitions used in policy analysis literature; however, the framework was adaptable to allow for critical analysis of the research findings.

Through the process of matching WBOT activities to the implementation stages, gaps in the implementation process were easily identified. The three key drivers of the implementation sifted out the more critical challenges from the lesser important ones. This allowed for a complex analysis of the research findings in order to understand the enablers and constrains to implementation as well as the organisational readiness for change, hereby answering the objectives of the research.

The competency drivers provided a useful way to unpack the problems and relate the selection, training and coaching of WBOT to the fidelity of implementation. In terms of the leadership drivers, the IDF helped distinguish that district and sub-district managers responsible for overseeing the WBOT implementation adopted a technical leadership approach focussing on the various processes involved in getting functional teams in the district, such as establishing WBOTs and training them. However, in the absence of a transformational leadership approach that could champion the change process at the provincial level, manage difficult situations, recognise the long-term vision and mobilise the collective organisation towards change, the program was managed as a silo, within the already established organisational culture that resists change and integration.

The organisational drivers concept was useful to reveal how the new ways of working were introduced in the clinic, community and district. It helped determine the district's success in creating an enabling context in which the WBOT intervention could be implemented (at the time of the study). The terminology and jargon within the organisational drivers was not easily understandable. Furthermore, communication was not explicitly part of the IDF, yet it emerged as an important determinant for effective management and organisation of WBOTs. A more explicit construct for communication would enhance the framework.

Extensive research, including the findings of this study show that implementation of PHC policies in fragile health systems is a challenge (WHO Regional Office for Africa 2008). The focus on the NIRN IDF and formula for success represented a starting point for critical reflection. More regular use of the framework will allow for more critical appraisal of the

framework, and will use of other tool developed by NIRN and other implementation science researchers. Furthermore, adaptation of the NIRN tools will enable greater creativity in thinking about implementation of policies that benefit the poor in fragile health contexts.

5.7 Limitations of the study

The results of the study should be interpreted in the light of the following limitations. All focus group discussions were conducted in English. As an English-only language speaker, I posed the questions to study participants only in English and invited participants to respond in any vernacular language. Since everyone opted to respond in English, this could have limited the depth of expression and responses. Despite this, a complex and detailed data was obtained.

The scope of the study is limited to one district in the country. EHD is a unique district in many ways, for example local government runs the majority of health facilities. It is not the same as other districts in the Gauteng province, or in the rest of South Africa.

I was specifically interested in the views of CHWs, the team leaders and those involved in the process of implementation. This deliberate choice limited the scope of the research, and limited the study population. I did not speak to people higher up in management in order to understand their responsibilities in the implementation process. I did not interview community members who have been visited by CHWs, or who have received care from the WBOT team as this was beyond the scope of the study.

Chapter Six: Conclusion and Recommendations

In conclusion, the study found that sustainable systemic change requires clear, detailed planning guidelines, defined leadership structures, budgetary commitments, and continuous communication strategies. Furthermore, successful change is dependent on the on-going commitment to human resources development and capacity building, including investment in supervision, quality training, organisational support and competent staff. This study highlights the critical importance of organisational readiness that includes health systems and actor readiness when implementing policies across decentralised systems. Furthermore, adaptation to local contexts must be heeded in policy processes. Power politics and governances could arguably be a driving force in SA's health reforms, given its growing recognition and its mentions in the findings. This study further illustrates that in order to re-engineer PHC, to achieve the vision and values set out by the Alma Ata Declaration, and, to strengthen outreach services across relevant sectors, participation of all relevant actors is crucial for successful implementation.

The DoH neglected to build an implementation strategy into the WBOT guidelines, and did not create feedback loops to enable recalibration and quality improvement. This research provides a starting point to thinking about WBOT implementation from an implementation science and policy analysis lens. In this section, recommendations that are benchmarked against the framework and mapped along the timeline and phases of implementation will be made.

6.1 Recommendations

6.1.1 WBOT guidelines and targets

6.1.1.1 Long term recommendations

A key recommendation of this study is to convene a national summit on the WBOT programme with accompanying regional learning networks dedicated to sharing experiences to create a feedback loop and developing an implementation strategy. All key stakeholders should share their experiences and lessons from the implementation of the WBOT programme since 2011 until now. This summit must include the users of health services in keeping with the principles of community participation as defined by the Alma Ata Declaration (Rosato et al. 2008; Rifkin 2009). Furthermore, the participation of the general public is directly related to the level of political awareness and organisation of within civil society. To avoid this process from becoming merely 'lip service', indicators along the continuum of community participation must be documented ensuring that experiences from the ground are substantively integrated (Draper et al. 2010).

Furthermore, lessons may be taken from the Brazilian experience where the right and duty of the society to participate in the management of the public sector is evident in their law, Statute 8142 (28 December 1990), which mandates the creation of Health Councils at the federal, state and city levels. The composition of each council includes 50% users and 50% managers (Ministry of Health of Brazil 2009).

Any new implementation strategy needs to take a complex adaptive health system lens when approaching the governance, regulation, management and oversight of the WBOT program on the ground. From the outset, there must be acknowledgement of the challenge of managing a programme of this scale and geographical spread of 4277 wards (SANDoH 2011) across the country. The WHO harmonisation framework for CHW programmes recommends monitoring and accountability with targets at community, facility, district and national levels that support this approach, yet differ, to allow each level to function effectively (Mogedal et al. 2013). These targets need to focus on regulation, quality improvement, standardisation, accountability and integration, and in this way, avoid a one size fits-all approach and on the other hand, fragmentation.

With respect to the granular nature of WBOTs, the targets allow for central control with autonomy and adaptation at the local level. At the central level, targets should be standardised, and ideally fit in with the national priority of health systems strengthening and integration across all health policy and implementation plans.

At the micro level, where implementation occurs, the targets must be designed in such a way that they enable adaptation of the guidelines to suit the local context. In this way, implementers on the ground must be given enough discretionary power to make decisions, while adhering to the minimum core standards (Lehmann & Gilson 2013). Lehman (2013) makes it clear that practices of power are at the heart of every policy process (Lehmann & Gilson 2013). Over-regulation of the micro-practices of CHWs and team leaders at the frontline of service delivery in communities may have a negative influence on implementation.

The information gathered at the local level must be focussed on successful quality driven implementation and the feedback loop of information that is derived from the WBOT team. Information gathered from a comprehensive community diagnosis that might include population demography, burden of disease and geographical demarcation, environment, socio-economic factors, health resources and services, must inform priority setting (Salama 2008). Within different provinces, implementation might be managed by a combination of representatives from the provincial, district, sub-district and local government levels.

6.1.1.2 Short term recommendations

An immediate step for policy makers to consider is the creation of a monitoring and evaluation tool that is based on performance. This research shows that simply deriving information on the number of teams established is not very useful. Quantitative targets that consider the drivers of implementation defined in the IDF, and which are applied to the WBOT team, might be useful. Some of these might include: How many HIV tests are followed up?; How many team leaders have been given the capacity to conduct supervisory visits?; How many teams are using data to formulate plans?

This information must allow for the recalibration of adjustments to the drivers for adequate management of the change process. This will improve the change cycle. Monitoring and managing the IDF will lead to the achievement of the fidelity outcomes, and ultimately, the progressive realisation of the policy intentions.

6.1.2 CHW conditions of service

6.1.2.1 Long term recommendations

In line with the recommendations of the Labour Court, the protests and subsequent imprisonment of CHWs in the Free State, as well the results of the this study, CHWs must be employed on a permanent basis as per court Judgement (The Judiciary: Republic Of South Africa 2016). Furthermore, in line with the Constitution of South Africa (1996) and South African law, CHWs have the right to 'equal pay for equal work'. If the DoH expects CHWs to fulfil a medical role (especially when conducting tasks that once belonged to either doctors or nurses and now have been shifted to the CHWs, they need to be paid adequately to do so.

As the task shifting process takes place, CHWs need to have competence in the face of communities that are depending and relying on them to provide such expert skills a screening and early detection of TB, HIV and pregnancy. Payment for a level of both clinical and administrative expertise must be linked to adequate training. Currently, we continue to risk providing second-rate care to poor people in our communities (Buch et al. 1984; Nxumalo 2015).

If CHWs receive adequate training and are found to be competent (through a well-designed competency test), they should be remunerated accordingly. The DoH has shown political will towards the re-engineering of PHC, specifically shifting away from the emphasis on curative care needs towards early detection and treatment at the community level, yet they have not shown commitment to the CHWs who are tasked with the role of providing this service on the ground. The argument for better remuneration is deeply tied to CHW expected skill sets, fairness of labour practices and equity.

For CHWs to effectively carry out their role, they need to be integrated into the local structures of government that strengthen meaningful citizen and community participation, giving voice and dignity to the needs of communities. This includes their health committees and local health structures addressing the structural determinants of health.

The potential role of CHWs in social mobilisation and community advocacy does not feature in the current guidelines. CHWs need to be upskilled to serve as advocates on behalf of their communities and to improve accountability on a local level.

CHW conditions of service must be clear, with unemployment insurance funds, benefits, pension, sick leave and access to occupational health and safety protections. In a country where unemployment is high, the role of CHW should attract young, vibrant individuals who aspire towards a long-term career in health care. The CHW cadre therefore must be incorporated into any human resource planning initiatives in health, and should form part of the country's strategy to address high unemployment rates. This is the social benefit of CHWs that has been overlooked in the policy process. So long as CHWs are being paid monthly stipends of between R1500 - R3500, they remain the burden of the state – in terms remaining dependent on other of social benefits (disability, school subsidies, pensions). If people have permanent employment with a decent salary, they are no longer a burden to the state at a social level.

Labour and occupational health laws must protect CHWs to ensure a safe and healthy work environment. Each CHW must have access to personal protective equipment like gloves and masks. In addition, they must be registered to receive work-related compensation. Furthermore, they must have access to treatment from the clinic based on their needs, such as chronic care or HIV prophylaxis.

6.1.2.2 Short term recommendations

In the current financial context, where employing CHWs a permanent basis is not feasible, the DoH needs to project a plan that will lead to the progressive realisation of this goal. This projected plan must be designed in consultation with CHWs, where key decisions must be reached. The option of outsourcing must be abandoned. A fixed term contract with monthly stipends, with accompanying non-financial incentives must be considered as an interim measure.

The research highlights that to have competent CHWs, sufficient attention must be given to their selection. Furthermore, DoH must provide education and administrative support to CHWs. The curriculum, and competency criteria for their training must take precedence over arbitrary measures such as training hours that fail to consider the learning needs, background and capacity of CHWs who come from disadvantaged backgrounds. Multimedia materials should be

developed with innovative teaching methods, including blended learning and on sight peer-to-peer training (Redick et al. 2014; Nxumalo 2015). Ongoing training, with regular refresher courses are essential, as part of the coaching of CHWs (Redick et al. 2014). Innovative strategies such as peer-to-peer supervision could also be considered (Nxumalo 2015).

The curriculum must be extensive, covering clinical, organisational, and data administration, and provide CHWs with the competence to compile and analyse the data collected in the field so as to improve the quality of their service delivery. This is only possible with the presence of a dedicated, full-time team leader to support CHW competency needs. Team leaders need to be well equipped themselves with leadership skills in order to provide the quality coaching. They also need sufficient time and resources to provide effective and coaching packages.

6.1.3 Material, financial and human resources

6.1.3.1 Long term recommendations

The DoH must honour its commitment and investment towards the vision of comprehensive PHC and the decentralisation process. This vision must be accompanied by a conditional or demarcated budget, with clear guidance on how to spend, prioritise and allocate money. In a resource constrained environment, accountable and ethical practices must be encouraged through effective monitoring of government spending.

In terms of Human Resources, the DoH must ensure that the WBOT programme has the ‘right’ number of health personnel, in the ‘right’ places (geographical distribution), in the ‘right’ combination (skills mix), at the ‘right’ time (short- and long-term planning), with the ‘right’ knowledge, appropriate skills, attitudes and competencies, at the ‘right’ price (budget and remuneration doing the right thing (Green 2011). The DoH must take this into account when deciding about the team leader for WBOT programmes. The study revealed the importance of on-going supportive supervision and coaching. The team leader’s primary role is the provision of clinical supervision skills, both theoretical and practical.

6.1.2.2 Short term recommendations

The provision of resources and materials required for the day-to-day tasks of CHWs will unleash their potential. The DoH must compile a list of essential resources and materials that must be provided. These include uniform with nametag, umbrella for the rain, a dedicated office where they can operate from and meet, files to store paperwork, stationary, and a phone for communication. CHWs must be provided with the hardware required for effective data management. It might include hand held mobile devices, or alternatively, paper-based data collection tools. These tools must link to the DHIS. Transport must be considered, and where necessary, WBOTs must have access to a car.

A structure must be put in place to ensure that communication between constituents is made robust, and goal driven. This process must enhance teamwork, and facilitate the process of addressing needs. This includes, but is not limited to:

- Regular meetings between team leaders and CHWS
- WBOTs must be incorporated into clinic meetings
- Clinic staff, WBOTs and community
- WBOT and all departments where they refer community member to, such as SASSA, home affairs
- Team leaders, district and sub-district managers

6.3 Future research

The importance of PHC to the delivery of equitable health services in South Africa makes it imperative to undertake thorough research, where the depth of qualitative experience provides a complex understanding that can be used to problem solve and improve the WBOT programme. One cannot generalize this research because of the fact that South Africa is an enormously diverse country. However a review of the findings raise many questions for which further in-depth research of this kind is warranted:

This study represents a preliminary look at using the NIRN in a WBOT implementation context. Further research in other settings in the EHD would assess the tools, methods and processes of implementations. Replicating this study at a different points in implementation timeline might demonstrate, for example, how much progress EHD has been able to make, while at the same time, identifying key factors that led to the progress, or challenges that might have occurs. For example, over the course of the data collection of this research the payment structure for CHWs changed twice, affecting CHWs motivation and feelings of belonging and value.

Expanding the study sample to include a larger sample and a wider range of key informants would strengthen the findings of the research. Key stakeholder in the community, and users of the service are important stakeholders that need to be included in the study. This study could explore ways to include users of PHC services in policy formulation, and ways to build grater trust, buy in, support and adapt the way services are rendered to be more responsive and accommodating to the communities beliefs, traditional practices, and vulnerabilities.

Furthermore, senior managers at the district and provincial level should also be included in the study to provide more insight on the implementation process, barriers and enablers of implementation.

Replicating this study in other setting (at districts and sub-districts level) across the country would be useful to cross compare implementation experiences using a standardised framework both cross-sectionally and temporally along the timeline.

As assessment of the integration of the WBOT program with other streams of PHC re-engineering, the ideal clinic strategy and within the national core standards and a comparison of the implementation of each guideline will provide useful insight into the features of the formulae for success that led to socially significant outcomes.

Using the formulae for successful implementation and the IDF framework, a comparison study of the WBOT model as a national CHW program with other national CHW programs across LMIC and resource poor setting would be provide insight into the effectiveness of the design of the intervention itself. This could be compared to innovative models within the South African context such as the health post model. Furthermore, with respect to the concerns by Doherty (2016) and colleagues regarding the low CHW: patient ratio and limited scope of practice compared to other countries, this might provide insight into ways the intervention could be adapted (e.g. include curative care or is it limited to delivering health promotion messages).

This participants in the study did not speak about their role within the district hospital as a continuum of care model. le Roux (2015) and colleagues suggested that the district hospital should serve as a hub from which PHC services can be supported and organised. They suggest that the district hospital have a role to play in the WBOT teams in South Africa. Further research on this will provide insight on how to strengthen and promote a more effective team approach and continuity of care eg. CHWs who refer a pregnant lady with a complicated pregnancy to the district hospital should continue the care pathway by supporting the mother and baby at the PHC clinic, and then when discharged back to her home.

This study provides preliminary insight into many factors that impact of implementation. Key themes that emerged from this research would be importantly to explore include, but are not limited to: gendered aspect of CHW care giving, motivation, satisfaction and the value of CHWs, barriers to provincialisation and administrative integration of services, the development of mechanisms to models to enable meaningful community involvement in policy development and translation.

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Appendix A: Plagiarism declaration

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

FACULTY OF HEALTH SCIENCES

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I Shehnaz Munshi (Student number: 0203439R) am a student

registered for the degree of Masters in Public Health in the academic year 2012.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: _____ Date: **31 March 2017**

Appendix B: WBOT Data capturing tools

Team Leader:

- Team Leader Community Profile Information
- PHC Outreach Team Leader CHW Summary Information Sheet
- PHC Outreach Team Leader CHW Supervision Summary Form
- PHC Outreach Team Leader Programme Reporting Tool
- Monthly PHC Outreach Team Leader Summary Form
- Monthly PHC Outreach Team Leader Monthly Activity Summary
- PHC Outreach Team Leader Supplies and Logistics Checklist

Community Health Worker:

- Household registration form (see below)
- Referral Form (from Outreach Team to Provider)
- Individual Adult Health Record
- Maternal And Child Health Record
- CHW Household Visit Tick Sheet
- CHW Household Visit Monthly Summary Form
- Outreach Team Monthly Summary Form

Household registration form

Household Registration Form

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

Official Household registration number

Clinic name *(DHIS name)*		Ward *(DHIS #)*		**CHW** household identifier number	
Name of household head/contact				Date of visit *(dd/mm/yyyy)*	
Household street address/descriptive location				CHW name	
				Team name *(DHIS name)*	
				Household respondent *A = available; N/A = not available; R = refused*	A / N/A / R
				Were all household members registered in this visit?	Y / N
Household head phone number					

1. Household member details	b. Date of birth *(dd/mm/yyyy)*	c. Age in years	d. Gender: male	d. Gender: female
a. Name				
1				
2				
3				
4				
5				
6				
7				
8				
e. Totals				

2. Information about the house		
a. Does the house have electricity?	Y	N
b. Is there piped water in the house or in the yard?	Y	N
c. Is there a working fridge in the house?	Y	N
d. Is there a toilet in the house?	Y	N
e. Total number of rooms in the house?		
f. How many grants does the household receive in total?		
g. How many people in the house are currently working?		
h. Name of school(s) for learners		

3. General household screening questions for all households *If YES to any of following questions, refer for further care*			*Write HH member # in the last column*
a. Does anyone in the household have any of the following: *(circle all that apply)* *(refer for sputum test for TB)* Cough that won't go away? / Night sweats / Weight loss / Fever / Loss of appetite?	Y	N	
b. It is very important to know your HIV status. Would anyone in the household like to have an HIV test? *(refer for HCT)*	Y	N	
c. Is there anyone who does not use a family planning method but wants to? *(refer for family planning services)*	Y	N	
d. Is there anyone in the household who cannot get out of bed or needs help with daily living activities? *(refer for home-based care)*	Y	N	
e. Do any household members need help applying for social grants? *(refer for social services)*	Y	N	
f. Is this a child (<18 years) headed household? *(refer for social services)*	Y	N	

4. Household screening questions for CHW follow-up *If any of the answers below are YES, this household will need follow-up. Complete page 2 of this form*		
a. Is anyone in the household currently pregnant or has not had a menstrual period in the last 6 weeks and may be pregnant?	Y	N
b. Has there been a delivery (baby) in the last 6 weeks?	Y	N
c. Are there any children under the age of 5 in the household?	Y	N
d. Is anyone in the household taking daily medication (like TB/ARV/diabetes medication/high BP medication)?	Y	N

Notes:	***DOES THIS HOUSEHOLD NEED FOLLOW-UP?***	
	YES **Complete page 2 of this form**	**NO** **Write date for next HH re-assessment visit**

Version 2
August 2012

Appendix C: CHW characteristics

A total of fifty-one CHWs participated in the FDGs from five WBOT teams. Of those, forty-one CHWs were woman and ten were men. The age of the CHW varied, with forty-three of them between the age of 20 and 40 years. Eight CHWs were between the ages of 40-55 years. Most of the CHWs were newly appointed, with forty of them working for 6-12 months in the WBOT programme. The remaining eleven, all part of one team, were joined the WBOT programme for 24 months before the FGD. The years of experience working with the NGO varied considerably (no data on this or their previous education, schooling career). CHWs spoke a range of languages. Data was collected on their reported home language. The most common language was isiZulu, followed by SeSotho. The community health workers characteristics are represented by in the table 4 below.

	Category	Number	%
Age	20-29	22	43%
	30-39	21	41%
	40-55	8	16 %
Gender	Male	10	20%
	Female	41	80%
Months Appointment to WBOT	0-12	40	78%
	13-24	3	6%
	25-36	5	10%
	37-48	3	3%
Number of CHW per team	WBOT 1	11	
	WBOT 2	9	
	WBOT 3	7	
	WBOT 4	12	
	WBOT 5	12	
CHW home language(s)	isiZulu	24	
	English	7	
	Afrikaans	1	
	SeSotho	19	
	Sepedi	7	
	isiXhosa	4	
	Tshwana	1	

Appendix D: Interview guide – focus group discussion (CHW)

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Focus Group Discussion (CHW)

INTERVIEW GUIDE

Questions in bold (with prompts below – ONLY if not raised)

1. **What is your role in Municipal Ward Based Outreach Team across your Ward?**

    a. Job Description?

    Skills?

2. **In what way has your role changed in the context of PHC re-engineering, if at all?**

    a. Job Description
    b. Mapping?
    c. Resources in community?
    d. MCH
    e. Time

3. **What are your experiences of the implementation of the MWBPHCOT across your Ward**

    a. Challenges?
    b. Facilitators?
    c. Equipment/ drugs?
    d. Reception in the community?
    e. Mobility in community?
    f. Safety?

4. **What are your views on human resource challenges in implementation of the MWBPHCOT across your ward?**

    a. Number of worker?
    b. Supervision
    c. Support
    d. Training
    e. Career path

5. **Please tell me about your relationship with the clinic?**

    a. Team work?
    b. Recognition?
    c. Outreach team and PHC Clinic?

6. **If you could change or improve anything around implementation of MWBPHCOT, what would it be?**

7. **Do you have anything else to add? [5min]**

Appendix E: Interview guide – team leader

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

In-Depth Interview (Team Leader)

Interview GUIDE

Questions in bold (with prompts below – ONLY if not raised)

1. **What is your role in Municipal Ward Based Outreach Team across your Ward?**
    a. Job Description?
    b. Skills?

2. **What are your views on implementation of the MWBPHCOT across your Ward?**
    a. Challenges?
    b. Facilitators?
    c. Management/ Mentorship?
    d. Promotion
    e. Prevention
    f. Referral

3. **What are your views on human resource challenges in implementation of the MWBPHCOT across your ward?**
    a. Supervision
    b. Training/ competency

4. **What are your views of your relationship with the MWBPHCOT?**
    a. Team work?
    b. Link - Outreach team and PHC Clinic?

5. **If you could change or improve anything around implementation of MWBPHCOT, what would it be?**

6. **If you were the Health Minister, and were responsible for designing the composition of the MWBPHCOT, what would this team look like and what would their role be?**

7. **Do you have anything else to add? [5min]**

Appendix F: interview guide – key informant

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Key Informant Interview (Clinic support staff)

INTERVIEW GUIDE

Questions in bold (with prompts below – ONLY if not raised)

1. **What is your role in Municipal Ward Based Outreach Team across your Ward?**
    a. Job Description?
    b. Skills?

2. **What are your views on implementation of the MWBPHCOT across your Ward?**
    a. Challenges?
    b. Facilitators?
    c. Management/ Mentorship?
    d. Promotion
    e. Prevention
    f. Referral

3. **What are your views on human resource challenges in implementation of the MWBPHCOT across your ward?**
    a. Supervision
    b. Training/ competency

4. **What are your views of your relationship with the MWBPHCOT?**
    a. Team work?
    b. Link - Outreach team and PHC Clinic?

5. **If you could change or improve anything around implementation of MWBPHCOT, what would it be?**

6. **If you were the Health Minister, and were responsible for designing the composition of the MWBPHCOT, what would this team look like and what would their role be?**

7. **Do you have anything else to add? [5min]**

Appendix G: Information letter for participants – focus group interviews

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Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Information letter for participants – Focus Group Interviews

About us

We are a research team from the Department of Family Medicine and School of Public Health at the University of the Witwatersrand (see details below), working on an European Commission funded research initiative that seeks to critically examine HUman Resources for African PRIMmary healthcare, called HURAPRIM. We would like to invite your participation in a research project that seeks to explore the views of the Primary Health Care (PHC) Clinic Team (Professional Nurse, community health worker, supporting clinic staff) in your ward on the implementation of municipal ward-based Primary Health Care (PHC) Outreach Teams and the related HR challenges.

Why are we doing this?

Municipal Ward Based Primary Health Care Outreach Teams (MWBPHCOT) are being implemented in Gauteng, South Africa, and is an integral part of PHC Re-engineering and National Health Insurance proposals. Analysis of the situation in health districts as well as examination of the literature suggests that this intervention needs to be better defined for measurable

implementation. Key to implementation are Human Resource challenges. As an exploratory study this research project seeks to understand the views of the PHC clinic team on the implementation of MWBPHCOT and the related human resource challenges. This will serve as a foundation to explore further understanding of PHC Re-engineering and successful implementation of this plan. Policy analysis can contribute to understanding implementation and strengthen it.

What is expected of the participants?

You are invited to a focus group discussion meeting with other community health workers to discuss the implementation of the MWBPHCOT in your ward.

The following questions will be addressed in each focus group discussion meeting:

1. What is your role in Municipal Ward Based Outreach Team across your Ward?
2. In what way has your role changed in the context of PHC re-engineering, if at all?
3. What are your experiences of the implementation of the MWBPHCOT across your Ward?
4. What are your views on human resource challenges in implementation of the MWBPHCOT across your ward?
5. Please tell me about your relationship with the clinic?
6. If you could change or improve anything around implementation of MWBPHCOT, what would it be?
7. Do you have anything else to add? [5 min]

The focus groups should only be for between 60-90 minutes. There will be brief discussion on clarity, consensus understanding explored around common issues from the PHC clinic team, review of process and some resolutions on a way forward. We hope you will enjoy the lunch at the proceedings

What about confidentiality?

As is the nature of focus group discussions, the researchers cannot guarantee that other members participating in the focus group will maintain confidentiality

of the discussion. Additionally, anonymity cannot be guaranteed. However, your name and affiliation will be removed from the transcription of the focus group discussion. You may withdraw from the discussion at any time and are not obliged to respond to any particular question. You may choose to leave the room at any time during the focus group without the need to give any reason for leaving. We have requested, in seeking permission, that managers be fully authorised to participate, at no risk, if they choose to do so. There will be an opportunity for you to respond to the same questions in writing, confidentially and without consequence using the evaluation form.

What will happen to the opinions I expressed after the focus group?

Your voice, along with those of the other participants, will be audio-recorded during the focus group discussion. This discussion will be written up on paper. Your views will be analysed, with other views, to explore the range of experiences and views. During the write up of the research, we will remove your name and any identifying details. Any identifiable information will be kept secure by the Jozi Family Medicine (Wits) research team. Any published data from the project, including selected quotations, will not be linked to your name or specific facility. The findings of this project will be submitted for publication in an open-access peer-reviewed journal.

May I withdraw from the study?

Your participation is entirely voluntary. You are free to decide whether or not you wish to join the interview. There will be no consequences to you whether you participate or not. You may withdraw at any time. If you do not wish to answer any particular question or if you wish to end the interview at any point then we will respect and honour your decision. You will not be victimised in any way.

Risks and Benefits

You might be part of a focus group with people to whom you might need to report to, or who might hold a higher position of authority than you we will request them to be aware of it and to respect opinions with no consequence for difference of opinions. However, an announcement will be made at the beginning of each focus group session giving you permission to leave the room at any time without giving any reason for leaving. Ground rules will be

set up at the beginning of the focus group discussion to support free participation and improve confidence in your contribution. You will be encouraged to complete a post focus group evaluation in order to give feedback about process issues within the focus group, and any individual concerns that might have arisen during the focus group discussion.

It is important to remember that participation in this research is entirely voluntary and as a result no financial reward or incentive will be given.

Although there will be no direct benefit to yourself, the study hope to improve the provision of healthcare services by the collective lesson learnt from the discussions.

What permission has been given?

Official permission to conduct this research has been granted by the relevant local health authorities. Ethical permission to conduct this research has been granted by the Human Research Ethics Committee of the University of the Witwatersrand, City of Johannesburg and Gauteng Department of Health. Should you require any information regarding your rights as a research respondent, or have any complaints regarding this study, you may contact Ms Anisa Keshav, the secretary to the University of Witwatersrand Human Research Ethics Committee (HREC) on +2711 717 1234 or anisa.keshav@wits.ac.za.

If you are willing to participate, we will request you to sign the formal consent form for both the participation and the recording of the interview. Copies of consent forms will be provided to you. The full Research Project protocol is available at www.jozifamilymedicine.org.za > Development > HURAPRIM > Jhb PHCOP Mgmt Focus Group Study if you so request. Please do not hesitate to ask any questions.

Who should I contact if I have any questions?

If you should have any queries about the project, please contact Shehnaz Munshi (Principal Researcher): shehnazm1@gmail.com / +2799608751

Thank you

Yours sincerely,

Principal Researcher: Shehnaz Munshi*,

Co-researchers: Dr Shabir Moosa*, Miss Pascalia Munyewende, Mr Stephen Pentz*

*Researchers are affiliated with University of the Witwatersrand, South Africa

Appendix H: information letter for participants – in-depth Interview

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DEPARTMENT OF FAMILY MEDICINE
Medical School, 7 York Road, Parktown 2193 South Africa
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Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Information letter for participants – In-Depth Interview

About us

We are a research team from the Department of Family Medicine and School of Public Health at the University of the Witwatersrand (see details below), working on a European Commission funded research initiative that seeks to critically examine HUman Resources for African PRIMmary healthcare, called HURAPRIM. We would like to invite your participation in a research project that seeks to explore the views of the Primary Health Care (PHC) Clinic Team (Professional Nurse, community health worker, supporting clinic staff) in your ward on the implementation of municipal ward-based Primary Health Care Outreach Teams (MWBPHCOT) and the related HR challenges.

Why are we doing this?

Municipal Ward Based Primary Health Care Outreach Teams are being implemented in Gauteng, South Africa, and is an integral part of PHC Re-engineering and National Health Insurance proposals. Analysis of the situation in health districts as well as examination of the literature suggests that this intervention needs to be better defined for measurable implementation. Key to implementation are Human Resource challenges. As an exploratory study this research project seeks to understand the views of the PHC clinic team on the

implementation of MWBPHCOT and the related human resource challenges. This will serve as a foundation to explore further understanding of PHC Re-engineering and successful implementation of this plan. Policy analysis can contribute to understanding implementation and strengthen it.

What is expected of the participants?

You are invited to an in-depth interview to discuss and explore the implementation of the MWBPHCOT in your ward.

The following questions will be addressed in the interview:

1. What is your role in Municipal Ward Based Outreach Team across your Ward?
2. What are your views on implementation of the MWBPHCOT across your Ward
3. What are your views on human resource challenges in implementation of the MWBPHCOT across your ward?
4. What are your views of your relationship with the MWBPHCOT?
5. If you could change or improve anything around implementation of MWBPHCOT, what would it be?
6. If you were the Health Minister, and were responsible for designing the composition of the MWBPHCOT, what would this team look like and what would their role be?
7. Do you have anything else to add? [5min]

The interview should only be for between 60-90 minutes. There will be brief discussion on clarity, consensus understanding explored around common issues from the PHC clinic team, review of process and some resolutions on a way forward. We hope you will enjoy the lunch at the proceedings.

What about confidentiality?

The researcher guarantees confidentiality will be maintained. Your name and affiliation will be removed from the transcription of the interview. You may withdraw from the interview at any time and are not obliged to respond to any particular question. We have requested, in seeking permission, that professional nurse team leaders be fully authorised to participate, at no risk, if they choose to do so. There will be an opportunity for you to respond to the

same questions in writing, confidentially and without consequence using the evaluation form.

What will happen to the opinions I expressed after the interview?

Your voice will be audio-recorded during the interview. This discussion will be written up on paper. Your views will be analysed, with other views, to explore the range of experiences and views. During the write up of the research, we will remove your name and any identifying details. Any identifiable information will be kept secure by the Jozi Family Medicine (Wits) research team. Any published data from the project, including selected quotations, will not be linked to your name or specific facility. The findings of this project will be submitted for publication in an open-access peer-reviewed journal.

May I withdraw from the study?

Your participation is entirely voluntary. You are free to decide whether or not you wish to join the interview. There will be no consequences to you whether you participate or not. You may withdraw at any time. If you do not wish to answer any particular question or if you wish to end the interview at any point then we will respect and honour your decision. You will not be victimised in any way.

Risks and Benefits

It is important to remember that participation in this research is entirely voluntary and as a result no financial reward or incentive will be given. Although there will be no direct benefit to yourself, the study hope to improve the provision of healthcare services by the collective lesson learnt from the discussions.

What permission has been given?

Official permission to conduct this research has been granted by the relevant local health authorities. Ethical permission to conduct this research has been granted by the Human Research Ethics Committee of the University of the Witwatersrand, City of Johannesburg and Gauteng Department of Health. Should you require any information regarding your rights as a research respondent, or have any complaints regarding this study, you may contact Ms Anisa Keshav, the secretary to the University of Witwatersrand Human

Research Ethics Committee (HREC) on +2711 717 1234 or anisa.keshav@wits.ac.za.

If you are willing to participate, we will request you to sign the formal consent form for both the participation and the recording of the interview. Copies of consent forms will be provided to you. The full Research Project protocol is available at www.jozifamilymedicine.org.za > Development > HURAPRIM > Jhb PHCOP Mgmt Focus Group Study if you so request. Please do not hesitate to ask any questions.

Who should I contact if I have any questions?

If you should have any queries about the project, please contact Shehnaz Munshi (Principal Researcher): shehnazm1@gmail.com / +2799608751

Thank you

Yours sincerely,

Principal Researcher: Shehnaz Munshi*,

Co-researchers: Dr Shabir Moosa*, Miss Pascalia Munyewende, Mr Stephen Pentz*

*Researchers are affiliated with University of the Witwatersrand, South Africa

Appendix I: Information letter for participants – key informant interview

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
DEPARTMENT OF FAMILY MEDICINE
Medical School, 7 York Road, Parktown 2193 South Africa
Tel: +27 (0)11 717 2056 / 2041 Fax: +27 (0)11 7172558
shehnazm1@gmail.com
shabir@drmoosa.co.za
stephen@jozifamilymedicine.org.za

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Information letter for participants – key informant interview

About us

We are a research team from the Department of Family Medicine and School of Public Health at the University of the Witwatersrand (see details below), working on a European Commission funded research initiative that seeks to critically examine HUman Resources for African PRIMmary healthcare, called HURAPRIM. We would like to invite your participation in a research project that seeks to explore the views of the Primary Health Care (PHC) Clinic Team (Professional Nurse, community health worker, supporting clinic staff) in your ward on the implementation of municipal ward-based Primary Health Care Outreach Teams (MWBPHCOT) and the related HR challenges.

Why are we doing this?

Municipal Ward Based Primary Health Care Outreach Teams are being implemented in Gauteng, South Africa, and is an integral part of PHC Re-engineering and National Health Insurance proposals. Analysis of the situation in health districts as well as examination of the literature suggests that this intervention needs to be better defined for measurable implementation. Key to

implementation are Human Resource challenges. As an exploratory study this research project seeks to understand the views of the PHC clinic team on the implementation of MWBPHCOT and the related human resource challenges. This will serve as a foundation to explore further understanding of PHC Re-engineering and successful implementation of this plan. Policy analysis can contribute to understanding implementation and strengthen it.

What is expected of the participants?

You are invited to a key informant interview to discuss and explore the implementation of the MWBPHCOT in your ward.

The following questions will be addressed in the interview:

1. What is your role in Municipal Ward Based Outreach Team across your Ward?
2. What are your views on implementation of the MWBPHCOT across your Ward?
3. What are your views on human resource challenges in implementation of the MWBPHCOT across your ward?
4. W hat are your views of your relationship with the MWBPHCOT?
5. If you could change or improve anything around implementation of MWBPHCOT, what would it be?
6. If you were the Health Minister, and were responsible for designing the composition of the MWBPHCOT, what would this team look like and what would their role be?
7. Do you have anything else to add? [5min]

The interview should only be for between 60-90 minutes. There will be brief discussion on clarity, consensus understanding explored around common issues from the PHC clinic team, review of process and some resolutions on a way forward. We hope you will enjoy the lunch at the proceedings.

What about confidentiality?

The researcher guarantees confidentiality will be maintained. Your name and affiliation will be removed from the transcription of the interview. You may withdraw from the interview at any time and are not obliged to respond to any

particular question. We have requested, in seeking permission, that professional nurse team leaders be fully authorised to participate, at no risk, if they choose to do so. There will be an opportunity for you to respond to the same questions in writing, confidentially and without consequence using the evaluation form.

What will happen to the opinions I expressed after the interview?

Your voice will be audio-recorded during the interview. This discussion will be written up on paper. Your views will be analysed, with other views, to explore the range of experiences and views. During the write up of the research, we will remove your name and any identifying details. Any identifiable information will be kept secure by the Jozi Family Medicine (Wits) research team. Any published data from the project, including selected quotations, will not be linked to your name or specific facility. The findings of this project will be submitted for publication in an open-access peer-reviewed journal.

May I withdraw from the study?

Your participation is entirely voluntary. You are free to decide whether or not you wish to join the interview. There will be no consequences to you whether you participate or not. You may withdraw at any time. If you do not wish to answer any particular question or if you wish to end the interview at any point then we will respect and honour your decision. You will not be victimised in any way.

Risks and Benefits

It is important to remember that participation in this research is entirely voluntary and as a result no financial reward or incentive will be given. Although there will be no direct benefit to yourself, the study hope to improve the provision of healthcare services by the collective lesson learnt from the discussions.

What permission has been given?

Official permission to conduct this research has been granted by the relevant local health authorities. Ethical permission to conduct this research has been granted by the Human Research Ethics Committee of the University of the Witwatersrand, City of Johannesburg and Gauteng Department of Health.

Should you require any information regarding your rights as a research respondent, or have any complaints regarding this study, you may contact Ms Anisa Keshav, the secretary to the University of Witwatersrand Human Research Ethics Committee (HREC) on +2711 717 1234 or anisa.keshav@wits.ac.za.

If you are willing to participate, we will request you to sign the formal consent form for both the participation and the recording of the interview. Copies of consent forms will be provided to you. The full Research Project protocol is available at www.jozifamilymedicine.org.za > Development > HURAPRIM > Jhb PHCOP Mgmt Focus Group Study if you so request. Please do not hesitate to ask any questions.

Who should I contact if I have any questions?

If you should have any queries about the project, please contact Shehnaz Munshi (Principal Researcher): shehnazm1@gmail.com / +2799608751

Thank you

Yours sincerely,

Principal Researcher: Shehnaz Munshi*,

Co-researchers: Dr Shabir Moosa*, Miss Pascalia Munyewende, Mr Stephen Pentz*

*Researchers are affiliated with University of the Witwatersrand, South Africa

Appendix J: Socio-demographic questionnaire

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
DEPARTMENT OF FAMILY MEDICINE
Medical School, 7 York Road, Parktown 2193 South Africa
Tel: +27 (0)11 717 2056 / 2041 Fax: +27 (0)11 7172558
shehnazm1@gmail.com
shabir@drmoosa.co.za
stephen@jozifamilymedicine.org.za

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Socio-demographic questionnaire

About us

We are a research team from the Department of Family Medicine and School of Public Health at the University of the Witwatersrand (see details below), working on a European Commission funded research initiative that seeks to critically examine HUman Resources for African PRIMmary healthcare, called HURAPRIM. We would like to invite your participation in a research project that seeks to explore the views of the Primary Health Care (PHC) Clinic Team (Professional Nurse, community health worker, supporting clinic staff) in your ward on the implementation of municipal ward-based Primary Health Care Outreach Teams (MWBPHCOT) and the related HR challenges. Please complete the following questionnaire

1. What is your position at the clinic/in the MWBPHCOT?
   _____
2. How long have you been in this position [ ] [ ]
   years [ ] [ ] months
3. Have you attended a workshop on MWBPHCOT? Yes __ No __ *(go to question 5)*
4. If yes, a) what was the workshop(s)?
   _____

b) Where did the workshop take place(s)?

_____

c) How long was the workshop(s)? [ ]
[ ] days [ ] [ ] hours

5. How old are you? _____

6. What is your sex? Male __
   Female ___

7. What is the main language that you speak at home?
   a. isiZulu
   b. English
   c. Afrikaans
   d. SeSotho
   e. Sepedi
   f. isiXhosa
   g. Other Specify: _____

Appendix K: Consent form (focus group discussion 1)

CONSENT FORM - FOCUS GROUP INTERVIEW

Concerning participation in a Research Project.

Name of Research Project:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng

Principal Researcher: Ms Shehnaz Munshi. Supervisor: Dr Shabir Moosa, Ms Pascalia Munyewende Pascalia Munyewende. (All Researchers are affiliated with University of the Witwatersrand, South Africa)

I understand that I have been invited to participate in a Focus Group Interview
I have heard the aims and objectives of the Research Project that are proposed. I was given opportunity to ask questions and was also given enough time to think about this Research Project. I have not been forced or pushed in any way to take part. I am clear about the aims of the Research Project.
I understand that taking part in this Research Project is completely voluntary i.e. of my own choice. I know that I may withdraw from it at any time without giving any reasons.

I do understand that the focus group will be audiotaped, and that this recording will be used only for the purposes of analysing as data in this Research Project. I have been told that only the researchers above will be able to access the tape recording. I have also been told that when this analysis is complete these recordings will be destroyed. I agree to participating in the focus group with me being audio-taped.

I understand that the researchers above cannot guarantee that other members participating in the focus group will maintain confidentiality or anonymity of the discussion.
I know that the results of this Research Project will be used for scientific and educational purposes, and that may include being published. I agree to this, provided any identifying data of region and name are removed.
I hereby agree to participate in focus group interviews in this Research Project.

……..... ....
Name of participant Signature of participant Witness

……..... ……..... .....
Place Date

Statement by the interviewer:
I have given written and oral information regarding this Research Project to the participant.
I agree to answer any future questions concerning the Project as best as I am able.
I will adhere to the protocol as it has been approved.

…..... ..... ……..... …….....
Name of interviewer Signature Date Place

Appendix L: Consent form (focus group discussion 2)

CONSENT FORM - FOCUS GROUP AUDIOTAPING

Concerning participation in a Research Project.

Name of Research Project:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng

Principal Researcher: Ms Shehnaz Munshi. Supervisor: Dr Shabir Moosa, Ms Pascalia Munyewende Pascalia Munyewende. (All Researchers are affiliated with University of the Witwatersrand, South Africa)

I understand that I have been invited to participate in a Focus Group Interview
I have heard the aims and objectives of the Research Project that are proposed. I was given opportunity to ask questions and was also given enough time to think about this Research Project. I have not been forced or pushed in any way to take part. I am clear about the aims of the Research Project.
I understand that taking part in this Research Project is completely voluntary i.e. of my own choice. I know that I may withdraw from it at any time without giving any reasons.

I do understand that the focus group will be audiotaped, and that this recording will be used only for the purposes of analysing as data in this Research Project. I have been told that only the researchers above will be able to access the tape recording. I have also been told that when this analysis is complete these recordings will be destroyed. I agree to participating in the focus group with me being audio-taped.

I understand that the researchers above cannot guarantee that other members participating in the focus group will maintain confidentiality of the discussion.
I know that the results of this Research Project will be used for scientific and educational purposes, and that may include being published. . I agree to this, provided any identifying data of region and name are removed.
I hereby agree to being audiotaped in focus group interviews in this Research Project.

……..... .....
.....
Name of participant Signature of participant Witness

……..... ……..... Place Date

Statement by the interviewer:
I have given written and oral information regarding this Research Project to the participant.
I agree to answer any future questions concerning the Project as best as I am able.
I will adhere to the protocol as it has been approved.

……..... ....
…….....
Name of interviewer Signature Date Place

Appendix M: Consent form (in-depth interview 1)

CONSENT FORM - IN-DEPTH INTERVIEW

Concerning participation in a Research Project.

Name of Research Project:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng

Principal Researcher: Ms Shehnaz Munshi. Supervisor: Dr Shabir Moosa, Ms Pascalia Munyewende Pascalia Munyewende. (All Researchers are affiliated with University of the Witwatersrand, South Africa)

I understand that I have been invited to participate in an In-depth Interview

I have heard the aims and objectives of the Research Project that are proposed. I was given opportunity to ask questions and was also given enough time to think about this Research Project. I have not been forced or pushed in any way to take part. I am clear about the aims of the Research Project.

I understand that taking part in this Research Project is completely voluntary i.e. of my own choice. I know that I may withdraw from it at any time without giving any reasons.

I do understand that the interview will be audiotaped, and that this recording will be used only for the purposes of analysing as data in this Research Project. I have been told that only the researchers above will be able to access the tape recording. I have also been told that when this analysis is complete these recordings will be destroyed. I agree to participating in the focus group with me being audio-taped.

I understand that the researchers above guarantee confidentiality or anonymity of the interview.

I know that the results of this Research Project will be used for scientific and educational purposes, and that may include being published. I agree to this, provided any identifying data of region and name are removed.

I hereby agree to participate in focus group interviews in this Research Project.

……..... .....
.....
Name of participant Signature of participant Witness

……..... ……..... Place Date

Statement by the interviewer:

I have given written and oral information regarding this Research Project to the participant.

I agree to answer any future questions concerning the Project as best as I am able.

I will adhere to the protocol as it has been approved.

…….... ..... ……..... ……..... Name of interviewer Signature Date Place

Appendix N: Consent form (in-depth interview 2)

CONSENT FORM - IN-DEPTH AUDIOTAPING

Concerning participation in a Research Project.

Name of Research Project:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng

Principal Researcher: Ms Shehnaz Munshi. Supervisor: Dr Shabir Moosa, Ms Pascalia Munyewende Pascalia Munyewende. (All Researchers are affiliated with University of the Witwatersrand, South Africa)

I understand that I have been invited to participate in an In-depth Interview
I have heard the aims and objectives of the Research Project that are proposed. I was given opportunity to ask questions and was also given enough time to think about this Research Project. I have not been forced or pushed in any way to take part. I am clear about the aims of the Research Project.
I understand that taking part in this Research Project is completely voluntary i.e. of my own choice. I know that I may withdraw from it at any time without giving any reasons.

I do understand that the focus group will be audiotaped, and that this recording will be used only for the purposes of analysing as data in this Research Project. I have been told that only the researchers above will be able to access the tape recording. I have also been told that when this analysis is complete these recordings will be destroyed. I agree to participating in the focus group with me being audio-taped.

I understand that the researchers above guarantee confidentiality or anonymity of the interview.
I know that the results of this Research Project will be used for scientific and educational purposes, and that may include being published. . I agree to this, provided any identifying data of region and name are removed.
I hereby agree to being audiotaped in focus group interviews in this Research Project.

……..... ....

Name of participant Signature of participant Witness

……..... …….....

Place Date

Statement by the interviewer:
I have given written and oral information regarding this Research Project to the participant.
I agree to answer any future questions concerning the Project as best as I am able.
I will adhere to the protocol as it has been approved.

……..... ..... ……..... …….....

Name of interviewer Signature Date Place

Appendix O: Consent Form (Key Informant Interview 1)

CONSENT FORM - KEY INFORMANT INTERVIEW

Concerning participation in a Research Project.

Name of Research Project:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng

Principal Researcher: Ms Shehnaz Munshi. Supervisor: Dr Shabir Moosa, Ms Pascalia Munyewende Pascalia Munyewende. (All Researchers are affiliated with University of the Witwatersrand, South Africa)

I understand that I have been invited to participate in a Key Informant Interview
I have heard the aims and objectives of the Research Project that are proposed. I was given opportunity to ask questions and was also given enough time to think about this Research Project. I have not been forced or pushed in any way to take part. I am clear about the aims of the Research Project.
I understand that taking part in this Research Project is completely voluntary i.e. of my own choice. I know that I may withdraw from it at any time without giving any reasons.

I do understand that the interview will be audiotaped, and that this recording will be used only for the purposes of analysing as data in this Research Project. I have been told that only the researchers above will be able to access the tape recording. I have also been told that when this analysis is complete these recordings will be destroyed. I agree to participating in the focus group with me being audio-taped.

I understand that the researchers above guarantee confidentiality or anonymity of the interview.
I know that the results of this Research Project will be used for scientific and educational purposes, and that may include being published. I agree to this, provided any identifying data of region and name are removed.
I hereby agree to participate in focus group interviews in this Research Project.

……..... .....
.....
Name of participant Signature of participant Witness

……..... ……..... Place Date

Statement by the interviewer:
I have given written and oral information regarding this Research Project to the participant.
I agree to answer any future questions concerning the Project as best as I am able.
I will adhere to the protocol as it has been approved.

…..... ..... ……..... ……..... Name of interviewer Signature Date Place

Appendix P: Consent Form (Key Informant Interview 2)

CONSENT FORM - KEY INFORMANT INTERVIEW AUDIOTAPING

Concerning participation in a Research Project.

Name of Research Project:

Exploring the Municipal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng

Principal Researcher: Ms Shehnaz Munshi. Supervisor: Dr Shabir Moosa, Ms Pascalia Munyewende Pascalia Munyewende. (All Researchers are affiliated with University of the Witwatersrand, South Africa)

I understand that I have been invited to participate in a Key Informant Interview
I have heard the aims and objectives of the Research Project that are proposed. I was given opportunity to ask questions and was also given enough time to think about this Research Project. I have not been forced or pushed in any way to take part. I am clear about the aims of the Research Project.
I understand that taking part in this Research Project is completely voluntary i.e. of my own choice. I know that I may withdraw from it at any time without giving any reasons.

I do understand that the focus group will be audiotaped, and that this recording will be used only for the purposes of analysing as data in this Research Project. I have been told that only the researchers above will be able to access the tape recording. I have also been told that when this analysis is complete these recordings will be destroyed. I agree to participating in the focus group with me being audio-taped.

I understand that the researchers above guarantee confidentiality or anonymity of the interview.
I know that the results of this Research Project will be used for scientific and educational purposes, and that may include being published. . I agree to this, provided any identifying data of region and name are removed.
I hereby agree to being audiotaped in focus group interviews in this Research Project.

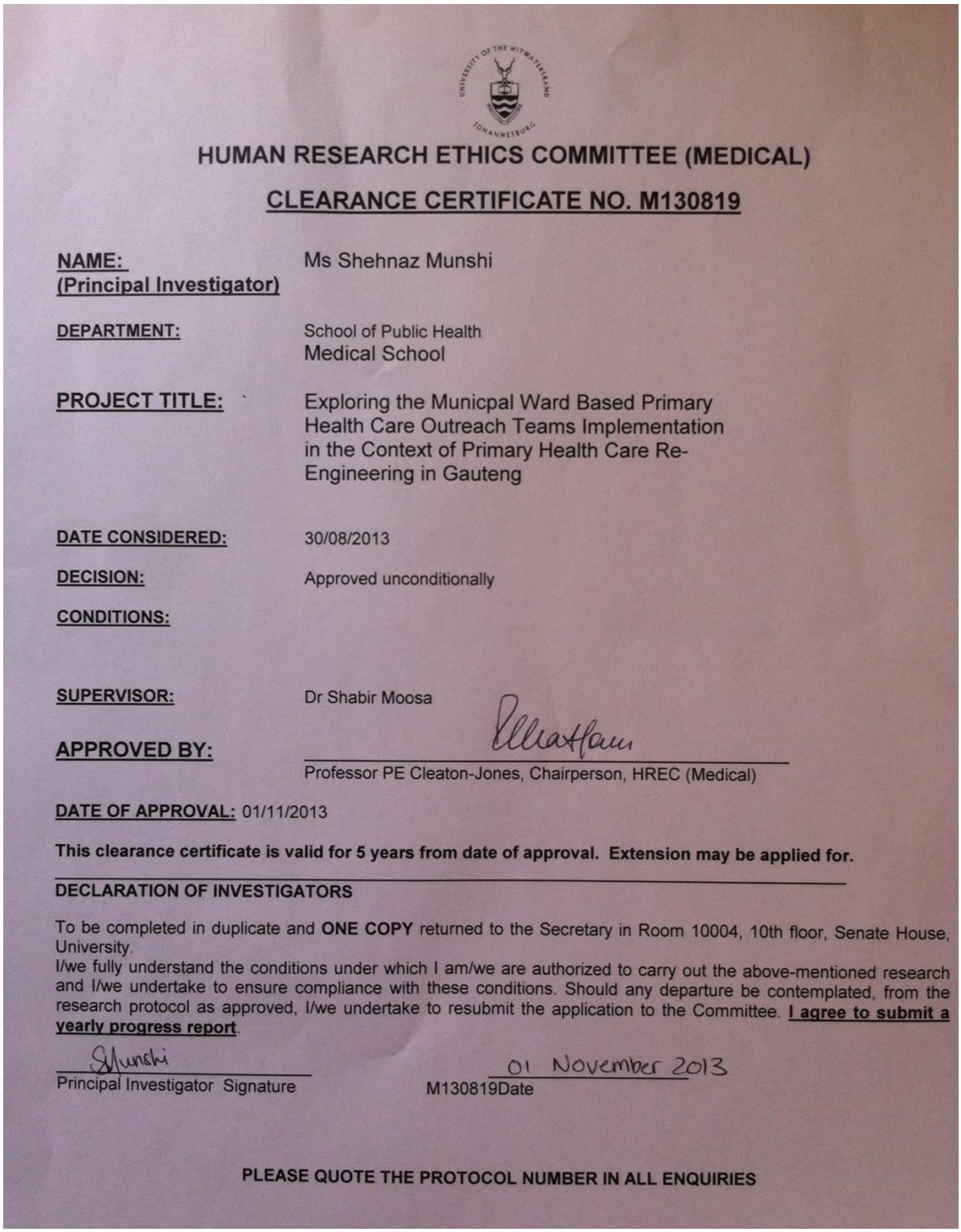
……..... .....
.....
Name of participant Signature of participant Witness

……..... ……..... Place Date

Statement by the interviewer:
I have given written and oral information regarding this Research Project to the participant.
I agree to answer any future questions concerning the Project as best as I am able.
I will adhere to the protocol as it has been approved.

…..... ..... …..... …….....
Name of interviewer Signature Date Place

Appendix Q: HSRC ethical approval



HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M130819

NAME: (Principal Investigator)	Ms Shehnaz Munshi
DEPARTMENT:	School of Public Health Medical School
PROJECT TITLE:	Exploring the Municpal Ward Based Primary Health Care Outreach Teams Implementation in the Context of Primary Health Care Re-Engineering in Gauteng
DATE CONSIDERED:	30/08/2013
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr Shabir Moosa
APPROVED BY:	Professor PE Cleaton-Jones, Chairperson, HREC (Medical)

DATE OF APPROVAL: 01/11/2013

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**.

S Munshi — Principal Investigator Signature

01 November 2013 — M130819Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix R: Gauteng permission

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Dr Shabir Moosa

CLEARANCE CERTIFICATE	**M121152**
PROJECT	Re-Engineering Primary Health Care (PHC): A Participatory Study of the Implementation of the Joburg Outreach Programme
INVESTIGATORS	Dr Shabir Moosa.
DEPARTMENT	Department of Family Medicine
DATE CONSIDERED	30/11/2012
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 30/11/2012 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Dr Shabir Moosa

DECLARATION OF INVESTIGATOR(S)
To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

Appendix S: Ekurhuleni permission

Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Ekurhuleni
METROPOLITAN MUNICIPALITY

RESEARCH
CLEARANCE CERTIFICATE

Research Project Title: Exploring the perceptions of the implementation of Municipal Ward Based Primary Health Care Outreach Teams in the context of Primary Health Care Re-engineering in Gauteng

Research Project Number: 27/07/2014-1

Name of Researcher(s): Shehnaz Munshi

Division/Institution/Company: Master student student at the University of Witwatersrand in the School of Public Health

DECISION TAKEN BY THE EKURHULENI HEALTH DISTRICT RESEARCH COMMITTEE (EHDRC)

- *THIS DOCUMENT CERTIFIES THAT THE ABOVE RESEARCH PROJECT HAS BEEN FULLY APPROVED BY THE EHDRC. THE RESEARCHER(S) MAY THEREFORE COMMENCE WITH THE INTENDED RESEARCH PROJECT.*
- *NOTE THAT THE RESEARCHER WILL BE EXPECTED TO PRESENT THE RESEARCH FINDINGS OF THE PROPOSED RESEARCH PROJECT AT THE ANNUAL EKURHULENI RESEARCH CONFERENCE.*
- *THE ETHICS PANEL WISHES THE RESEARCHER(S) THE BEST OF SUCCESS.*

DR J. SEPUYA

DEPUTY CHAIRPERSON: EKURHULENI METROPOLITAN MUNICIPALITY
Dated: 29/7/2014

Dr Ronel Kellerman

CHAIRPERSON: GAUTENG DEPARTMENT OF HEALTH (EKURHULENI REGION)
Dated: 29/07/2014